R4225-1-U 9/89

The 1989 Development Report Card for the States

THE CORPORATION FOR
ENTERPRISE DEVELOPMENT

EPORT CARD
erformance
Business Vitality
Capacity
Policy
A
C
B
A
B
B
F

The 1989 Development Report Card for the States

March 1989

THE CORPORATION FOR ENTERPRISE DEVELOPMENT
with
MT. AUBURN ASSOCIATES

Copyright March 1989 by The Corporation for Enterprise Development

ISBN: 0-9605804-5-X
Library of Congress Catalog Number: 89-060696

The Corporation for Enterprise Development
1725 K Street, NW
Suite 1401
Washington, DC 20006
202-293-7963

Table of Contents

The 1989 Development Report Card for the States 1

The Users' Guide 3

Class Portrait '89: States Confront the Global Challenge 7

U.S. Competitiveness at a Glance 10
The Summary Findings 11

The Performance Index 16

Performance Index Report Card 17
Subindex One: Employment 18
Subindex Two: Earnings and Job Quality 19
Subindex Three: Equity 20
Subindex Four: Environmental Health and Safety 21
Findings 23
Performance Data 26
Performance Data Sources 28

The Business Vitality Index 32

Business Vitality Report Card 33
Subindex One: Competitiveness of Existing Businesses 34
Subindex Two: Entrepreneurial Energy 35
Subindex Three: Structural Diversity 37
Findings 38

Business Vitality Data 42
Business Vitality Data Sources 44

The Capacity Index 48

Capacity Report Card 49
Subindex One: Human Resources 51
Subindex Two: Technological Resources 52
Subindex Three: Financial Resources 53
Subindex Four: Physical Infrastructure and Amenity Resources 55
Findings 57
Capacity Data 61
Capacity Data Sources 64

The Policy Index 68

Policy Report Card 69
Subindex One: Tax and Fiscal Environment 71
Subindex Two: Education 72
Subindex Three: Infrastructure and Amenities 74
Subindex Four: Business Support 78
Subindex Five: Development Finance 80
Subindex Six: Disadvantaged Communities and Individuals 83
Findings 85
Policy Data 89
Policy Data Sources 96

The State Report Cards 111

Appendix A: Notes on Methodology and the Development Model 137

Appendix B: Indicators of International Competitiveness 140

International Competitiveness Data 142
International Competitiveness Data Sources 146

Appendix C: More on Traded Sector and Structural Diversity 151

Appendix D: The Tax and Fiscal Environment Index 155

Tax and Fiscal Environment Data 158
Tax and Fiscal Environment Data Sources 160

Appendix E: The Transfer Payment Investment Index 161

Transfer Payment Investment Data 164
Transfer Payment Investment Data Sources 166

Appendix F: The 1988 Development Report Card 169

Please Note: This is last year's Report Card.

Acknowledgments 170

The 1989 Development Report Card

	Performance Index	Business Vitality Index	Capacity Index	Policy Index
Alabama	D	B	D	F
Alaska	**C**	**B**	**C**	**D**
Arizona	B	B	C	F
Arkansas	**D**	**C**	**F**	**C**
California	B	B	A	A
Colorado	**D**	**C**	**A**	**C**
Connecticut	A	A	A	B
Delaware	**A**	**A**	**A**	**C**
Florida	B	B	D	C
Georgia	**C**	**A**	**D**	**C**
Hawaii	A	D	B	C
Idaho	**D**	**C**	**C**	**D**
Illinois	C	D	B	B
Indiana	**B**	**B**	**D**	**C**
Iowa	C	F	C	B
Kansas	**B**	**C**	**C**	**B**
Kentucky	F	C	F	C
Louisiana	**F**	**D**	**F**	**D**
Maine	B	A	D	A
Maryland	**A**	**A**	**A**	**A**
Massachusetts	A	A	A	A
Michigan	**C**	**C**	**C**	**A**
Minnesota	B	C	A	A
Mississippi	**F**	**D**	**F**	**C**
Missouri	C	F	C	C
Montana	**D**	**C**	**C**	**D**
Nebraska	C	F	C	D
Nevada	**A**	**B**	**C**	**F**
New Hampshire	A	A	C	D
New Jersey	**A**	**A**	**B**	**A**
New Mexico	D	C	C	D
New York	**B**	**C**	**B**	**A**
North Carolina	B	B	D	B
North Dakota	**C**	**D**	**C**	**D**
Ohio	C	C	B	B
Oklahoma	**F**	**D**	**D**	**B**
Oregon	B	D	B	C
Pennsylvania	**C**	**D**	**A**	**A**
Rhode Island	A	C	C	B
South Carolina	**C**	**A**	**D**	**C**
South Dakota	D	F	D	F
Tennessee	**C**	**B**	**D**	**D**
Texas	D	C	B	D
Utah	**C**	**C**	**B**	**C**
Vermont	A	A	A	B
Virginia	**B**	**B**	**B**	**B**
Washington	C	C	A	B
West Virginia	**F**	**D**	**F**	**C**
Wisconsin	B	D	B	A
Wyoming	**D**	**F**	**C**	**D**

The Users' Guide

At some point in your life, this has happened to you: You walk into an art museum, or a public building, or perhaps a corporate boardroom, and there on the wall is a painting of someone you recognize instantly — a portrait so beautifully painted that it seems lifelike. Fascinated, you approach for a better look . . . but the closer you get to each brushstroke, the less understandable the painting becomes. So, you back away again and, as you do, the details recede and the portrait re-emerges, capturing not just the likeness, but even something of the character of its subject.

State business climate indexes are a bit like portraits. They combine minute bits of information — statistical brushstrokes — to create a picture of a state's economy. None of these brushstrokes tells us very much on its own, but taken together they can illuminate much about the character of a state's economy. Like a good portrait, a good economic climate index should present a likeness that is instantly recognizable and captures something of the state's spirit.

That is precisely what *The Development Report Card for the States* strives to do, and there is art as well as science involved.

Purpose: Create Illuminating Economic Portraits

Consider the position of the state economic development director or local business recruitment officer. In a highly competitive and increasingly international economy overflowing with economic data, it's getting harder and harder to see the big picture. Who is the competition? How do we stack up against them? What are our economic development assets? Where do we need to be stronger, more competitive? What investments do we need to make today if we're going to grow tomorrow?

For that matter, entrepreneurs and plant location officials are in the same boat: Where's the best place to start my business or build a new plant? Who's got the kind of workers I need? Will I be able to get start-up or expansion capital when I need it? What's the tax environment?

In the end, what both are asking is one deceptively simple question: *How would I recognize a good state economic climate if I saw one?* But, like many simple questions, there is no simple answer. Instead, there are more questions —

actually, four more questions — that can help us answer the "simple" one:

- *How well is the state's economy performing?* The bottom line on how an economy is doing, and an indicator of whether it offers a good place for businesses to grow, is its current performance — that is, how well it is doing its job of providing citizens opportunities for employment, income and an improving quality of life.

- *How vital are the businesses in the state?* The vitality of any state economy is determined by the vitality of the businesses located there — that is, how competitive they are, how diversified, and how many new ones are being created each year.

- *What is the state's capacity for continued growth?* The future of today's and tomorrow's businesses is tied directly to the quality and availability of the "building blocks" of economies — a skilled workforce, technological capacity, accessible capital, physical infrastructure and amenities.

- *What policies has the state established to support business growth and expand individual opportunity?* A critical element in any state's economic climate is the level of commitment it makes to invest in development capacity and support new initiatives for business growth.

The relationship between these four concerns is dynamic: public policies affect the levels and priorities of investments in capacity; economic resource capacity inevitably affects the vitality of businesses; and the vitality of businesses determines, in large measure, overall economic performance.

Taken together, the answers to these questions — like the brushstrokes in a painting — present a revealing portrait of each state economy and make it possible for those concerned with economic development to see the "big picture."

Perspective: Why a Report Card? Why Not Just a List?

The phrase "I don't know much about art, but I know what I like" applies as much to economic portraits as it does to fine art. Every business has different needs and, therefore, looks at a state's economic climate through different eyes. The things one business finds attractive about an economy may be of little interest to another.

Thus, any index that simply ranks the business climates of the states from 1 to 50 on a single list — or even two lists — fails to recognize the different perspectives of different users. For that matter, it also fails to recognize the uniqueness of each state. Trying to rank fifty states on a single list is a little like asking your grocer: "Which is better, this apple or this orange?" The grocer can only make sense of the question if he knows how you want to use them.

Consequently, *The Development Report Card* ranks the states according to dozens of variables, gathered into 16 graded (and one ungraded) subindexes. Then the subindexes are themselves gathered into four main indexes which correspond to the four organizing questions: Performance, Business Vitality, Capacity, and Policy. Like subjects on a school report card, the index grades give us a pretty clear view of how an economy is doing and how it is likely to do in the near future. But there is no single "final grade." Like adding apples and oranges, it would be meaningless.

Precision: Art Versus Science

Even a portrait of astonishing realism is, after all, simply a collection of daubs of paint, some more precisely placed or matched than others. The same is true of *The Development Report Card.*

Any economic climate index is limited by the quality and the timeliness of the data from which it is constructed. While it is possible to get current year data on some states, the best 50-state data sources tend to be at least a year old. A state that revolutionized its development policies in 1988 is not going to see the economic benefits of those actions reflected in this year's *Report Card.* Similarly, a state that experienced a wrenching economic crisis this year will not see that crisis appear in this report, unless it was part of a longer-term trend.

By the same token, because of the state-by-state focus of this economic climate index, variations *within* states will often not show up. There is an explicit attempt to distinguish between urban and rural economic changes in some measures, but for the most part the subject of these portraits is entire states.

Moreover, because we measure variables of universal applicability we are unable to distinguish some of the unique characteristics states have that may represent major economic assets or, in some cases, liabilities.

Finally, many of the questions we ask about state economies have no ready answers. Since many have never been asked before — or haven't been deemed important enough to answer recently — no one has been collecting data to answer them. So we must turn either to older data or "proxies" for the answers we seek, indirect ways of presenting a particular detail in the portrait. Some proxies, frankly, are better than others. And every year, as we seek greater realism, we introduce better ones.

In part, the relative imprecision involved in answering some questions explains why we created a "report card" instead of a numerical list. Who is to say for certain whether one-tenth of a point in the value of some measure means a state ranks 4th instead of 5th, for example? Instead, we assign grades to states that fall within fairly broad ranges: *A* for the top ten, *B* for the next ten, *C* for the middle fifteen, *D* for the next ten, and *F* for the final five.

In the end, what matters is whether the overall portrait does justice to the subject. While we labor over every brushstroke, absolute precision will always evade us. For one thing, the subject simply will not sit still; state economies keep changing, ever so subtly. For another, like the light in an artist's studio, the economic conditions surrounding the subject keep changing, and that inevitably affects how each portrait will turn out. Consequently, relative positions can change even if the subject does not.

The Product: How to Use It

Beauty, as they say, is in the eye of the beholder. This year, as in preceding years, some states will choose to display their portrait prominently and others will bury it in the back of a closet. Curiously, what they do with the results of *Report Card* does not necessarily depend upon how attractive the likeness was.

Understandably, some highly ranked states will want to publicize their grades; kudos are often few and far between in the economic development business, and one takes advantage of them when one can. But if the past is any guide, some of the states that fare poorly may display the results just as prominently to draw attention to, and build support for, the need for change.

A report card, after all, is neither a reward nor a punishment for past behavior; it is simply a status report. It reflects one's relative position in class at a given point in time and suggests places where improvement may be needed. But how it is used depends on the interests and motivations of the recipient.

The Development Report Card permits governors and legislators to see clearly where they stand on a wide range of factors that affect the state's economic future, and and how they compare with their competitors. Economic development officials and local recruitment specialists can see more clearly their competitive advantages and disadvantages, and craft both investment and development strategies accordingly. Individual entrepreneurs and corporate facility planners have here a more comprehensive set of development factors arrayed in one place than is the case with other economic climate indexes.

And this year, with the addition of a new set of *Indicators of International Competitiveness*, all *Report Card* users have an opportunity to consider the results in the light of global economic realities. In this regard, it is clear that even the high achievers in this year's *Development Report Card* face daunting competitive challenges.

Class Portrait '89: States Confront the Global Challenge

It was a scene rich with irony: a few days into 1989, a fact-finding delegation from sunny New Mexico arrived, 60-strong, in wintery Ann Arbor, Michigan. Their purpose? To learn about economic development from a state in which, only a few years ago, economic conditions were so bad, unemployment so high, plant closings so frequent, that beleaguered officials privately joked: "Last one to leave, turn out the lights."

Today, with an unemployment rate stuck stubbornly several percentage points above the national average, Michigan would still appear an odd place to look for economic advice. And yet, as the last two editions of *The Development Report Card for the States* make clear, New Mexico could hardly have made a better choice. Carefully, with little fanfare and with even less new public money, Michigan has crafted new economic development strategies so imaginative and comprehensive that it has earned *A*'s three years running on the *Report Card*'s development Policy Index. These innovations have yet to bear all their fruit; turning around a complex industrial economy, after all, takes time and patient investments. But the word is out: if you want to see the future, go to Michigan.

The Frostbelt Heats Up

The Frostbelt is hot again, and the reason isn't global warming. It's global competition — *succeeding at* global competition.

Caught napping a few years back when a host of new domestic and international competitors moved in on their traditional markets and customers, many of the manufacturing companies that had formed the Frostbelt's economic backbone simply folded. Others cut costs, slashing thousands of workers from their payrolls. Still others pursued the industrial version of "rearranging the deck chairs on the Titanic" jettisoning unprofitable divisions and subsidiaries, shuffling others, and acquiring or merging with other companies, but doing little to change the fundamentals.

Studying the dynamics of this restructuring on a company-by-company basis, University of Michigan political economist John E. Jackson (not incidently, a member of the team that developed Michigan's economic strategy) made an astonishing discovery: even in the depths of the recession, with the steel, auto, and machine tool industries collapsing, tens of thousands of new jobs were being created in both existing and new businesses in Michigan. What's more, many of these businesses were in the same industries that appeared to be in the steepest decline.[1]

It has since become clear that this phenomenon — thriving companies in declining industries — is neither limited to Michigan nor a temporary aberration. Nor, for that matter, is it limited to manufacturing. It is, instead, the leading edge of the next American economy, the first hint that the decline of American industry in international markets is neither inevitable nor irrevocable. Many American companies are succeeding in the struggle for international competitiveness.

The key question is why? What is it about these companies that permits them to compete successfully? A closely related question is: What can state governments learn from these companies to help others succeed?

It turns out that the answers to both questions are nearly identical. The formula for creating competitive state economies is largely the same as the formula for creating competitive companies.

The Characteristics of Competitiveness

Competitiveness. A word so overused that economic pundits now call it simply: "The C Word." And yet it is a word that won't go away, a challenge that keeps growing. What does it mean? What are the characteristics of competitiveness?

When researcher Jackson looked closely at the growing businesses in the struggling machine tool industry, he found a high correlation between their success and three factors — age, size, and the degree to which they used computer-numerically controlled machinery. In short, the smaller they were, the younger they were, and the more technology-intensive they were, the more likely they were to be growing.

In reality, however, recent research into the question of small business job creation makes it clear that it is the *behavior* typical of small and young businesses — not their size or age *per se* — that really matters.[2]

What kind of behavior? They seek out and penetrate distinct and often quite small market niches, tailoring production to meet the specialized needs of each customer. They achieve profitability often on very small production runs — making a product or delivering a service *better*, rather than *cheaper*. They invest heavily in both the latest equipment and in training their workers to operate that equipment effectively. Their workforce is highly flexible, capable of performing many tasks, so that production teams often change each time the product changes. A high degree of worker/management consultation regularly helps identify small incremental improvements in both products and process, improvements that help secure — and sometimes create —market position.

Researchers first identified these characteristics among young, small companies. But there is no reason, apart from habit, why these characteristics cannot exist in large corporations. Increasingly, they do. As the process of internal restructuring gives way to market building, single-minded attention to cost is giving way to concern about quality, even in America's largest corporations:

- John C. Marous, Chairman and Chief Executive Officer of Westinghouse, winner of the U.S. Department of Commerce's

National Quality Award, says: "... dedication to quality can enable an American producer of high technology products to compete anywhere in the world."[3]

- A 1988 survey of top manufacturing executives, conducted by Boston University's School of Management, found that "quality and the dependability and speed of delivery are the most important competitive capabilities."[4]

- A survey of the members of the American Business Conference, representing 100 of America's highest-growth, mid-size firms in all industrial sectors, found that "ABC companies compete against their international rivals primarily on quality, value, innovation, service, and marketing."[5]

In a world of chronic and deepening uncertainty, where the pace of technological change continues to accelerate, markets continue to fragment and the number of competitors continues to increase, these characteristics — market-orientation, production flexibility, long-term investments, and attention to quality — define "competitiveness," for businesses and for states.

The Cost of Complacency

Like the story of the Hare and the Tortoise, many of America's mass-production giants, resting comfortably in their accustomed position of dominance in domestic and world markets, realized late that the rules of the game had changed; the more astute players had taken the lead.

The cost of that complacency is illustrated in a new addition to *The Development Report Card for the States*: the *Indicators of International Competitiveness*. While the United States remains strong in employment indicators and development capacity indicators, it lags behind — sometimes far behind — its major industrial competitors (Canada, France, West Germany, Italy, Japan and the United Kingdom) in business vitality indicators. In results that echo the findings of last year's report by the Council on Competitiveness, these *Indicators* find that, over the course of the 1980s, the United States was only 6th (out of 7) in growth of standard of living, last in trade balance as well as growth in the exports, 6th in investments in new machinery and equipment, 4th in growth of manufacturing productivity, and last in non-defense R&D spending. While there may have been some improvements in the United States' performance in export activity over the last year, with the fall in the value of the dollar, the fact remains that our competitors are investing more, producing more, exporting more and, as a consequence, growing more than we are. (See the chart *U.S Competitiveness at a Glance* and *Appendix C.*)

The Business of Business Climates

What's all this got to do with state business climates? A great deal. In simplest terms, when the things that matter to business change, the things that matter in "business climates" change as well.

In some respects, America has two economies. The first, the remnant of an economy now nearly eclipsed, is based on raw materials extraction and mass production. Margins are narrow and cost — of raw materials, labor, and other

U.S. Competitiveness at a Glance

Here is how the United States ranks among its major global industrial competitors — including Canada, France, the Federal Republic of Germany, Italy, Japan and the United Kingdom — on selected measures of Economic Performance, Business Vitality and Resource Capacity. (A "1" indicates the "best" ranking, and a "7" the "worst" among the seven nations.)

ECONOMIC PERFORMANCE	U.S. Rank Scale: 1-7
Employment	
■ Employment Change	2
■ Unemployment	4
Earnings and Job Quality	
■ Standard of Living	1
■ Standard of Living Change	6
■ Industrial Disputes	4
Equity	
■ Income Distribution	4
■ Gender Gap	1
■ Infant Mortality	6

BUSINESS VITALITY	
■ Trade Balance Change	7
■ Export Change	7
■ Capital Investment	6
■ Manufacturing Productivity Change	4
■ Unit Labor Cost Change	2
■ Manufacturing Output Change	2

RESOURCE CAPACITY	U.S. Rank Scale: 1-7
Human	
■ Education Attainment	1
■ Skilled Labor Availability	3
Technology	
■ Researcher Availability	2
■ University R&D Spending	2
■ Government Non-Defense R&D Spending	7
■ Patents	4
Financial	
■ Financial "Liquidity"	2
■ Commercial Bank Deposits	3
■ Commercial Bank Loans	3
■ Net Savings Rate	7
Infrastructure and Amenities	
■ Road Condition	3
■ Railroad Condition	5
■ Air Transport Condition	1
■ Telecommunications Condition	1
■ Power Supply Condition	2
■ Physician Availability	5
■ Living Conditions	1

For complete data and discussion of these measures, please see *Appendix B: Indicators of International Competitiveness.*

production inputs — is the major determinant of profitability for companies in this economy. Once dominant in the North and industrial Midwest, businesses in this economy are found today chiefly in the South and West. Crippled by low wage competitors in developing nations, these businesses have been struggling for more than a decade. For those that had not already moved offshore to lower-wage countries, the decline of the dollar from its 1985 peak has provided a reprieve. But many are simply reaping short-term gains, they are not making the investments in production technology, market development research and practice, or product quality they will need in order to survive when the dollar turns upward again. For these businesses, low wages, low taxes, low energy costs — in fact, anything that lowers the cost of doing business — define a "good business climate."

The second economy is composed of the businesses responsible for the resurrection of the Frostbelt — the market-driven, technology-intensive, highly flexible, quality-based manufacturing and service businesses that, increasingly, are the engines of growth nationwide, and that the U.S. Commerce Department predicts will be the major players in international trade in the future. For these businesses, what matters is not the absence of business costs, but the responsiveness to business needs. Arthur Levitt Jr., Chairman of the American Business Conference and the American Stock Exchange, explains how the rules of the business climate game have changed:

> *"For American Business Conference members, the most important factors in locating a new plant are the education system in the community and the ability to access the right kinds of capital at the right times."*

To a far greater degree than their hulking, mass-production predecessors, the businesses driving today's economy rely upon state and local government for a wide array of services that affect, directly and powerfully, their domestic and international competitiveness. In a nation already facing labor shortages in some regions, these businesses rely on public education and job training programs to produce work-ready workers. They rely on public investments in infrastructure and environmental amenities to create communities their workers' families will want to live in. They depend upon public universities to produce skilled technicians. They depend upon state regulations that encourage financial institutions to provide capital to meet a wide range of business needs. They depend, in short, upon governments that are sensitive to their needs and willing to work as their partners.

Does this mean that taxes and wage rates don't matter anymore? Of course not. But it does mean that these issues, like everything else, are more complex than they once were. For example, how high wages are matters less than how skilled and productive the workers earning those wages are. How high taxes are matters less than whether the revenues they generate are invested by the community or state in the services businesses rely upon — good roads, safe streets, excellent schools and so forth.

The Development Report Card for the States is explicitly designed to address these new realities. More than just a business climate index, it presents comprehensive portraits of the economies of each of the 50 states, illuminating the current performance of their economies, the vitality of their businesses, their capacity for new growth, and their policy commitment to investments and actions that will support growth in the future.

The Summary Findings

A careful examination of the grades earned by the 50 states in this year's *Development Report Card* reveals several remarkably clear regional portraits that, in all but one case, look very different than the economic images we are used to seeing. In addition, the results reveal four cross-cutting lessons.

Portraits of a Changing American Economy

Portrait #1: The Northeast Boom Rolls On.

The clearest and least surprising finding is that the states included in the

"Northeast Megalopolis" — the increasingly urbanized region stretching roughly from Richmond, Virginia to Boston, Massachusetts — continue to have the most vigorous economic climates in the nation. Their unemployment is exceptionally low, earnings and earnings growth are strong. Their businesses are competitive and growing well, new business creation is relatively high, and business failure rates are relatively low. Not content to rest on their laurels, however, the states in this region continue to invest in development capacity, making consistent and steady improvements in education, infrastructure, capital markets and technology development. No region demonstrates the self-propelling performance of economies that have worked to attain economic "critical mass" more clearly than this region.

Both states earning straight *A*'s across all four Indexes this year — Massachusetts and Maryland — are part of this region. Four of the five states that earn all *A*'s and *B*'s — Connecticut, New Jersey, Vermont, Virginia and California — are also in this region. Virginia, located at the southern end of this region, may bridle at being referred to as a "Northeastern" state, but clearly its economic and demographic orientation faces north. In fact, every single state in this region is at or hovers near the "head of the class," earning neither *D*'s nor *F*'s in any of the four *Report Card* indexes.

There is, however, a cloud on the horizon for these chronic overachievers. While unemployment is low, employment growth is average or below average in many of these states — classic symptoms of an emerging labor shortage. Many jobs go begging, but the people still seeking work are often unqualified to fill them. With the arrival of the "baby bust" and a decline in the rate at which women are entering the workforce, the challenge is clear: either find ways to upgrade the skills of the people still unemployed or lose economic momentum.

Portrait #2: The Rust Belt Revives.

Rumors of the death of the industrial Midwest appear to have been greatly exaggerated. Predictions of an emerging "post-industrial" economy appear to have been equally exaggerated. The Rust Belt is back. Trimmed down to fighting weight, equipped with new technologies, and driven by workers with skills that are increasingly broad, America's factory economies are battling back to international prominence, closer to the top of the *Development Report Card.* The painful restructuring of the American economy began in New England and moved gradually to the Midwest; the recovery is doing exactly the same thing.

Michigan and Ohio earn *A*'s, *B*'s or *C*'s on all four Indexes, while Pennsylvania, Illinois and Wisconsin are close behind, each earning generally good to excellent grades, but hobbled by a single *D* in Business Vitality, the lingering effect of industrial restructuring. The key to the Rust Belt's resurgence can be found in these states' strongest scores. Every one of them has high grades on the Policy and Capacity Indexes, evidence they are solidly committed to investing to improve their economic climates and future development capacity. It will take time before their results begin to show up in the Business Vitality and Performance Indexes, but, like the Northeastern states that preceded them, improvement will come. Only Indiana, with just a *D* in Capacity and a *C* in Policy, still appears to have an uphill battle to renewed competitiveness; the others are well on their way.

Portrait #3: The South Is No Longer the Nation's Poorest Relations.

We are accustomed to seeing the states in the Deep South at the bottom of any index of economic health or competitiveness. The legacies of chronic underinvestment — underdeveloped infrastructure, inadequate government capacity, illiteracy, weak capital markets and footloose industries — traditionally relegate the South to the ranks of the nation's poor relations.

No more. Of the 13 states that receive no *A*'s or *B*'s on any index, only four are in the South, and two of them — Mississippi and Arkansas — are already working on the fundamental investments needed to lift them from the bottom of the lists.

This is not to say that the Old South still does not have a long way to go. With extremely limited resources and a multitude of crying needs, their economic climates remain weak, and they face a long uphill climb. Moreover, the southern states that do earn higher grades on the Performance and Business Vitality Indexes — Georgia, North and South Carolina, and Florida — each score *D*'s in Capacity and only *C*'s in Policy (Tennessee gets *D*'s in both), suggesting that their current good fortune may be short-lived unless they begin investing more in the future.

Nevertheless, the trend is up, and that is good news for the South and the businesses and citizens who live and work there.

Portrait #4: Acute Economic Distress Has Become Chronic in the Great Plains and Mountain West.

America's most troubled economies, the states with the least vital economic climates, are the thinly populated mineral extraction- and agriculture-dependent states of the Great Plains and the Mountain West. Poorly diversified, they were crippled by the collapse of many commodity prices at the beginning of the decade and have never recovered. Of the 13 states that receive no *A*'s or *B*'s on any of the four indexes, seven — South Dakota, North Dakota, Nebraska, Montana, Idaho, Wyoming and New Mexico — are from this region.

More troubling than their current economic distress, however, is the evidence that they are doing little about it. Six of these seven states receive *D*'s on the Policy Index; the seventh receives an *F*. Unlike the aggressive commitments the Rust Belt states made to long-term investments in rebuilding development capacity a few years ago, or the more recent policy shifts in the South, these states appear simply to be waiting for the next upturn in energy, mineral, timber and agricultural commodity markets. But those markets have changed fundamentally in the last decade, and the old "boom/bust" rules no longer apply.

Four Crosscutting Lessons

Lesson #1: Rural America Is in Trouble.

As America becomes an increasingly urban society, the economic climates of our rural regions and states are deteriorating. Wherever the *Report Card* measures rural economic conditions against urban economic conditions within states, rural areas invariably come out poorly.

Even more striking are the overall results posted by our most rural or most thinly-populated states. All the states scoring either all *D*'s and *F*'s or scoring better than *D* or *F* on only one index fall in this category. Of the 13 states that receive neither an *A* nor a *B* on *any* of the four indexes, all but one are best characterized as rural, with either agriculture- or extraction-dependent economies. And while the economy of the one exception, Missouri, is reasonably well diversified and urbanized, it also has a significant amount of agricultural and rural area.

While it is true that nearly all poorly-performing states are rural, it is not true that all rural states perform poorly. It is not their "ruralness" that causes the poor economic performance of so many rural states. Instead, it is how limited their mix of industries is and, in most cases, how little they are doing to upgrade their economic climates. In sharp contrast are states like Vermont, Maine or Minnesota — predominantly rural, but busy developing diverse economies and investing what resources are available to them to ensure further growth in the future. They are not waiting for the next cycle, they are *creating* it.

Lesson #2: Investing in a Better Economic Climate Pays.

Twenty years ago, the New England economy was scruffy and down at the heels. Abandoned by traditional industries, the old mill towns declined into a gritty industrial twilight. Today, the region's economy is vibrant. What made the difference was the recognition, initially by Massachusetts and then by its neighbors, that if there was going to be a future they had to create it themselves. The barrier was inadequate development capacity, and the solution was a commitment to investment in basic economic building blocks: education, infrastructure, amenities, technology, capital markets. Not very flashy — but very effective in the end.

The accelerating recovery of the industrial Midwest — where the once-demeaning "Rust Belt" label is now a badge of honor — took the same hard path and appears today to be reaping many of the same benefits. Now the southern states are following suit. The pattern is too regular to be coincidental, the results too tangible to be ignored: investing in yourself pays. States can take control of their own economic destinies, can reinvent themselves, can build vibrant, aggressively competitive economic climates if they are willing to invest steadily, work in partnership with business, and be patient. In the "quick results" world of American politics, the last condition may be the most difficult to meet.

Lesson #3: The Disparity Between Rich and Poor Is Increasing in Virtually Every State.

However productive the great American job-creation machine, however evident the recovery of the American economy, one stark fact spoils the generally attractive picture: the disparity between rich people and poor people in the United States increased from 1980 to the middle of the decade in every state but three (North Dakota, Hawaii and Alaska).

The increases, as measured by income inequality, range from as little as just over one percent in states that have had generally strong economies, to a high of 20 percent in states that are struggling. What this means is that even states experiencing strong economic growth cannot be confident that the benefits of growth are equitably distributed. In short, growth alone is not enough to guarantee an economy with increasing economic opportunity. To their credit, many states are already giving special attention to the hardest to reach — with new education and training programs, work readiness training, dropout prevention, community redevelopment initiatives, and transitional support services for new entrants to the workforce, among others. The lesson here is simply that states must always be vigilant, because the best of times for some may still be the worst of times for others.

Lesson #4: Leading the U.S. Economy Is Not Enough.

Having one of America's leading economic climates is no small feat for any state. It reflects significant economic achievement and significant public and private commitment to investments in future economic growth. The states that have earned high grades on all four indexes that comprise the *Report Card* — many of whom have had to overcome major economic hurdles to get there — deserve to bask in the warm glow of satisfaction.

But only briefly. For one thing, other states are working hard to catch up. More important, it is simply not enough to be a domestic economic leader; international economic leadership must be an equal, or greater, objective. The persistent challenges presented by Pacific Rim competitors, as well as the rapidly growing challenge presented by a unified European Community, mean that every state — especially those with the best economic climates — must excel in international markets. That is why this year we introduce more comprehensive measures for examining state international trade activities, and why we offer indicators about how the nation as a whole compares with our major global competitors on a range of economic measures. It is one more reason — if more reasons are even necessary — why the challenge facing state development officials today is not how to lure a business from a neighboring state, but how to create economic climates that make it possible for *all* businesses to grow to their fullest potential.

Endnotes

1. See John Case, "The Disciples of David Birch," *Inc.*, January 1989.

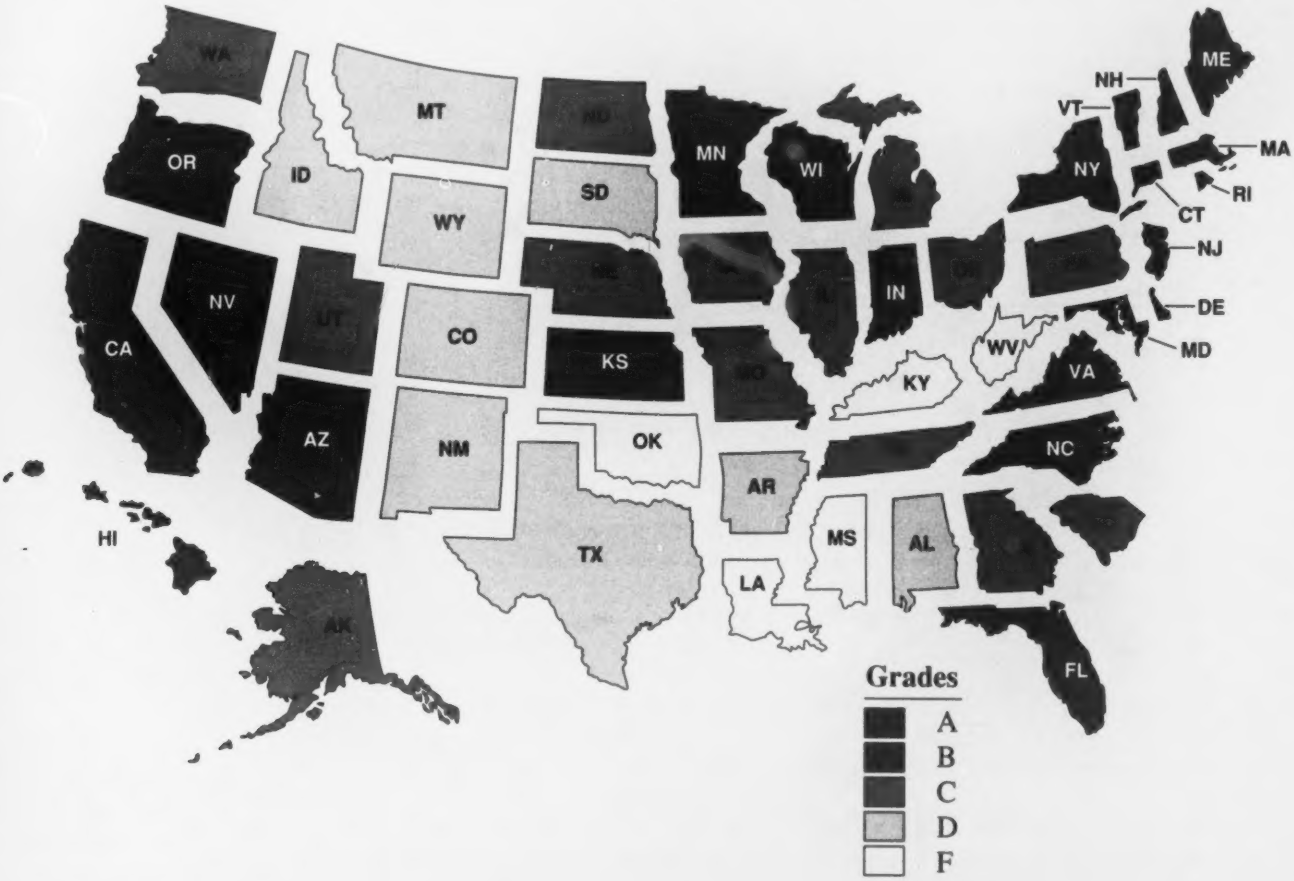
2. See John Case, ibid.; "The Hyping of Small Firm Growth," *Wall Street Journal* November 8, 1988; and David Osborne, *Laboratories of Democracy: A New Breed of Governor Creates Models for National Growth* (Boston: Harvard Business School Press, 1988).

3. Stuart Auerbach, "U.S. Honors Three Firms For Quality," *The Washington Post*, November 15, 1988.

4. Jeffrey G. Miller and Aleda V. Roth, *Manufacturing Strategies: Executive Summary of 1988 North American Manufacturing Futures Survey* (Boston: Boston University School of Management Manufacturing Roundtable, 1988).

5. American Business Conference, *The Challenge of Competitiveness: Views of America's High Growth Companies* (Washington, D.C.: American Business Conference, 1987).

1 The Performance Index


WA
MT
ME
NH
VT
MA
OR
ID
SD
MN
WI
NY
RI
CT
WY
NJ
NV
IN
DE
CA
CO
KS
WV
KY
VA
MD
AZ
OK
NM
NC
AR
HI
MS
AL
TX
LA
FL
Grades
A
B
C
D
F

Performance Index Report Card

	Employment Subindex		Earnings/ Job Quality Subindex		Equity Subindex		FINAL GRADE	
	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade
Alabama	28	C	40	D	41	D	41	D
Alaska	40	D	30	C	19	B	32	C
Arizona	7	A	23	C	18	B	12	B
Arkansas	32	C	50	F	38	D	44	D
California	14	B	17	B	31	C	16	B
Colorado	38	D	29	C	39	D	40	D
Connecticut	18	B	2	A	3	A	5	A
Delaware	5	A	10	A	4	A	2	A
Florida	3	A	27	C	24	C	13	B
Georgia	12	B	20	B	48	F	28	C
Hawaii	2	A	8	A	9	A	2	A
Idaho	39	D	44	D	27	C	42	D
Illinois	43	D	14	B	24	C	30	C
Indiana	42	D	16	B	12	B	20	B
Iowa	36	D	20	B	41	D	35	C
Kansas	19	B	26	C	23	C	18	B
Kentucky	48	F	42	D	43	D	46	F
Louisiana	49	F	47	F	50	F	50	F
Maine	9	A	18	B	11	B	11	B
Maryland	13	B	4	A	7	A	7	A
Massachusetts	17	B	3	A	6	A	8	A
Michigan	37	D	25	C	34	C	34	C
Minnesota	28	C	12	B	15	B	14	B
Mississippi	45	D	49	F	45	D	49	F
Missouri	22	C	23	C	31	C	26	C
Montana	46	F	48	F	20	B	43	D
Nebraska	34	C	39	D	24	C	35	C
Nevada	6	A	14	B	13	B	10	A
New Hampshire	1	A	5	A	1	A	1	A
New Jersey	15	B	1	A	5	A	4	A
New Mexico	32	C	45	D	49	F	45	D
New York	23	C	11	B	35	C	19	B
North Carolina	7	A	27	C	30	C	17	B
North Dakota	28	C	31	C	21	C	28	C
Ohio	44	D	19	B	10	A	24	C
Oklahoma	41	D	46	F	47	F	47	F
Oregon	16	B	33	C	21	C	20	B
Pennsylvania	35	C	7	A	31	C	24	C
Rhode Island	9	A	6	A	8	A	5	A
South Carolina	20	B	36	D	27	C	31	C
South Dakota	26	C	37	D	37	D	37	D
Tennessee	21	C	31	C	39	D	33	C
Texas	27	C	33	C	44	D	38	D
Utah	25	C	38	D	15	B	27	C
Vermont	4	A	22	C	2	A	9	A
Virginia	11	B	9	A	36	D	15	B
Washington	24	C	33	C	15	B	23	C
West Virginia	47	F	42	D	46	F	48	F
Wisconsin	28	C	13	B	29	C	20	B
Wyoming	50	F	41	D	14	B	39	D

1

PERFORMANCE

When it comes to the business of job creation, the United States goes straight to the head of the class. A chronic overachiever, the U.S. economy has produced 19 million new jobs in the last six years. Indeed our genius for job creation is a source of both astonishment and frustration to our international competitors.

There is something so basic about work that, despite all the other ways of characterizing an economy, jobs are the easiest to comprehend. Developers cite them each time they cut a ribbon. Governors and mayors announce them every time they propose a new economic initiative. Counting jobs is the simplest way of determining how an economy is doing.

Perhaps too simple. The fact is, not all jobs are created equal. Nor, for that matter, are all jobs equally available. Moreover, there are enormous variations in the production levels of the American job machine from state to state and from region to region.

Still, the opportunity to work is a crucial indicator of the performance of any economy, the gateway through which people are able to attain the elements of what they hope will be "a better life." So if we want to know how an economy is doing, we need to know not just how many people are employed, but also how many others are not employed. We need to know whether the number of jobs available is increasing or decreasing, whether they pay enough for people to meet basic necessities and put a bit aside for the future, and whether everyone has a fair shot at obtaining them. Finally, we need to know something about the quality of these jobs and about the quality of people's lives when they are off the job.

In short, there is more to assessing the performance of state economies than counting jobs. And yet, even using these additional measuring tools, the Performance Index only begins to take the measure of a state's economy. It tells us nothing about the future, only about the recent past.

Still, past is prologue; it is an important beginning.

This year, we measure the performance of state economies with 17 measures, gathered into four subindexes:

- *Employment*: the extent to which the economy is providing jobs for those who seek them;

- *Earnings and Job Quality*: how people are compensated for the work they do;

- *Equity*: the extent to which the opportunity to attain a higher standard of living is widely shared; and

- *Environmental Health and Safety*: a rough measure of the environment in which people live when they're not working.

Subindex One: Employment

We begin with the basics, and the most basic measure of the economic health of a state is whether people can find work. We use four direct measures of employment in this subindex: long-term employment growth, short-term employment growth, the unemployment rate, and duration of unemployment.

Long-Term Employment Growth
Short-Term Employment Growth

In any state economy, jobs are being created or eliminated continuously. The more energetic and adaptive the economy, the more this is true.

Measuring job growth does not tell us whether the jobs being created pay as well as those being eliminated, or who is getting the new jobs, or, for that matter, whether employment growth isn't simply a reflection of population growth. But it does tell us how quickly an economy is expanding, a key indicator of performance. This year, we measure short-term employment growth between 1986 and 1987, as well as long-term employment growth between 1979 and 1987. As a result, we can explore both the general trend within a state and the effect of recent events on that trend.

Unemployment Rate

Even if a state's economy is expanding, some people will be left behind. The most accepted measure of the mismatch between the numbers of jobs and job-seekers is the unemployment rate — the number of people who are looking for work or waiting to be called back to a job from which they have been laid off.

Here too, the measure is imperfect. It doesn't tell us anything, for example, about those who have never been a part of the labor force or who have become so discouraged by their inability to find work that they have stopped looking entirely. But despite these flaws, this is the best measure available.[1]

Unemployment Duration

We need to know more than simply *how many* people are unemployed; we need to know *how long* they have been in that position. Unemployment can occur for a variety of reasons, not all of them negative. Indeed, a worker's ability to move from one job to another can be a measure of the range of opportunity the state offers or the flexibility of the worker's skills.

Long-term unemployment, on the other hand, may indicate that the economy is failing to produce jobs, that the jobs being created and the skills of the workforce don't match, or that the hiring of some kinds of workers is being restricted in some way. This indicator measures those who have been jobless for more than 27 weeks — the point at which unemployment benefits normally expire. Because only those still looking for work are included in this measure, we do not have a way to identify those who have given up and dropped out.

Subindex Two: Earnings and Job Quality

The 1988 presidential race moved the issue of job quality to a position of prominence in the economic debate. Indeed, the issue of whether the restructuring of America's economy is replacing well-paid, low-skill jobs with low-paying, moderate-skill jobs is of critical importance in evaluating the national economy's performance. The purpose of this subindex is to explore this issue — that is, to augment the Employment subindex to go beyond *how many* jobs are being created to explore *how good* they are — in terms of wages and benefits. This subindex measures average annual pay, recent changes in average annual pay, and the only job-related fringe benefit for which data are readily available, health coverage.

Average Annual Pay

Average annual pay — that is, the total annual pay of all employees covered by unemployment insurance in a state, divided by the average monthly number of employees — provides a clearer picture of what working people can expect to earn from their jobs than does another commonly used figure — personal income per capita. That's because the first measure is based only upon those who actually are working in the state, not the total number of people in the state — and because it excludes income received off the job. Moreover, these payroll data include bonuses, tips and gratuities, paid vacation, and employer contributions to deferred compensation plans, among other things — not just wages. With few exceptions, all full-time and part-time employees of covered firms are reported, including production and sales workers, corporation officials, executives, supervisory personnel and clerical workers. Excluded, due to limits of the available data, are agricultural workers on small farms, most railroad employees, most non-profit organization employees and all members of the Armed Forces.

Average Annual Pay Growth

This measure converts the point-in-time "snapshot" of average annual pay into trend data, measuring the change from 1986 to 1987. Like employment growth, this measure aims to portray how much improvement, if any, is occurring in each state's economy. We considered including long-term pay growth as well, but found, significantly, such a high correlation between the two that they were redundant and would have overweighted this aspect of job quality.

Health Coverage

If one of the objectives of economic development is to help individuals achieve a better life, then we need to know something about the *quality* of the jobs that the economy is creating. The benefits that American workers have come to expect as part of their compensation for working are not being provided by many of the new jobs being created in today's economy. Understanding the extent to which state economies are meeting the health coverage needs of their citizens is one important clue to that quality, and it varies significantly from state to state.

Of these benefits, employer-sponsored health coverage is perhaps the most important. In 1986, 36.5 percent of the civilian nonagricultural population had no private or employer-sponsored health coverage. Moreover, 17.8 percent of that population had no health coverage whatsoever, including such publicly-supported coverage as Medicare. This latter figure is up sharply from 15.5 percent only four years earlier.[2]

Subindex Three: Equity

Asking the question, "How is the economy doing?" begs another question: "For whom?" Any evaluation of a state economy must be based not just upon the gross employment and income in the state, but upon the distribution of opportunities to gain employment and income as well. An economy is only as strong as its weakest link. The distribution of opportunity — how widely that opportunity is shared — has significant effects on how vital and attractive a state's economy seems to others, because the effects of inequitable distribution are often only too visible: poverty, crime, blighted neighborhoods, social discord, diminished productivity and wasted human talent.

Thus, the performance of a state economy is determined in no small part by how economic change affects the least advantaged, and by the extent to which the best jobs in the state are equitably distributed. To measure how widely-shared economic opportunity is in a state, we look at the poverty rate, metropolitan/non-metropolitan disparities in the poverty rate, the distribution of income among the people in the state, and the change in the distribution of income.

Poverty Rate

The number of individuals in a state who live below the federally-established poverty line presents a concrete measure of both performance in general, and equity in particular. An economy with a high percentage of people below this line — whether they work or not — is not fulfilling its basic purpose of providing people with opportunities for a better life.

Distribution of Income

To measure how income is spread within a state from the most wealthy to the most poor, we divide the population into income level intervals and compare it to a distribution of income that would be perfectly equal — that is, where the poorest 10 percent of residents received 10 percent of the income, the bottom 20 percent received 20 percent of the income, and so on. Using this method, the most inequitable distribution would yield a coefficient of 1.0 and a perfectly equitable distribution would yield a coefficient of 0.0. As perhaps one would expect, while there are distinct differences among states, the range is not wide; it varies between 0.321 and 0.427.

Change in Distribution of Income

There are, however, significant changes in the distribution of income between 1980 and the middle of the decade. An increase in the coefficient over time signals growing inequality in income distribution, a decrease signals a narrowing inequality.

Non-Metropolitan/Metropolitan Poverty

One of the more striking findings in last year's *Report Card* was that rural states in virtually every region tended to fare less well than their urbanized neighbors. Many state economic development officials have noted that the same phenomenon exists within states — that states often have two economies, one urban and generally thriving, the other rural and generally stagnant or declining. There are obvious exceptions: many central cities at the heart of booming metropolitan areas are economic wastelands, while many rural areas have found ways to diversify and thrive. There are no neat measures of the differences between rural and urban areas. To begin to depict these differences, we compare non-metropolitan (non-MSA) area poverty rates with metropolitan (MSA) area poverty rates within a state, correcting the data so that MSA's do not cross state boundaries. In most states, poverty in non-metropolitan areas exceeds metropolitan areas. In a handful of others, there is no statistically significant difference. And in two states, metropolitan poverty exceeds non-metropolitan poverty.

Subindex Four: Environmental Health and Safety

As the structure of the American economy has changed, the things that are most important to the people and businesses in that economy have also changed.

Increasingly, "quality of life" is a driving factor in the decisions people make to raise a family and build a business in a given locale.[3] But what does it mean? Clearly, when people talk about the quality of life in a state, they are talking about more than just environmental amenities. People include a wide but still unfocused array of social, economic and psychological factors as well, from the state's efforts to enhance and protect the environment, to educational quality, cultural opportunities, public facility maintenance, and, simply, whether the area seems safe. Some of these concerns are measured elsewhere in the Capacity and Policy Indexes. But here, as with other Performance Index measures, we are concerned about *outputs* — in this case: environmental quality and environmental health.

As in previous years, we have concluded that the data available to measure these outputs simply do not accurately portray the most important elements of quality of life. Particularly with respect to basic environmental issues — drinking water quality, for example — the available data are either fragmentary or misleading. Moreover, the available measures tend to illustrate population density, rather than environmental quality. Consequently, we have chosen to display the results of the measures we *were* able to compile with some confidence as an Environmental Health and Safety subindex, but *not* to include them in the calculation of state economic performance.

Crime Rate

At the most rudimentary level, the quality of life of a state or region can be gauged by whether people are safe from harm. The higher the crime rate — whether it affects people personally or not — the less safe people are likely to feel. This crime rate, drawing on FBI data, addresses the most serious crimes: murder, rape, robbery, assault, burglary, larceny and motor vehicle theft.

Environmental Quality

An economy that produces a high degree of environmental pollutants is neither "attractive" to new business nor to workers and families. To gauge the environmental quality of states, we developed a composite measure, that includes:

- *Air Quality.*
- *Superfund Dumpsites.*
- *Hazardous Waste Generation.*
- *Surface Water Discharge.*

We use these factors not because they represent the full range of environmental quality concerns, but because they are the only factors for which we have consistent nationwide data. Many other factors are needed to portray accurately the quality of the environment. As it currently stands, these measures tend more to portray how densely populated a state is, not how high or low its environmental quality is.

Infant Mortality Rate

Infant mortality rates are commonly used to measure the health of the population for reasons that go beyond the death of infants. Infant mortality correlates highly with the health and nutrition of the mother, which, in turn, provides us with some insight about living conditions for families as well as how accessible prenatal care services are.

Findings

Like ripples expanding in a pool, the restructuring of the American industrial economy began in the gritty factory towns of New England in the 1960s and early 1970s and spread outward through the Northeast and into the industrial Midwest as we entered the 1980s, leaving profound economic hardship in its wake. Perhaps not surprisingly, the recent economic recovery has followed roughly the same course. Massachusetts and its neighbors were the first to revive, with the growth of service and technology industries and technology-enhanced manufacturing. Today, the "Rust Belt" states of the upper Midwest also appear to have turned the corner. Slowly, painfully, they are battling back to positions of prominence. Even though economic statistics tend to be static things, the Performance Index captures a sense of this movement.

This year, as last, Northeastern states — especially those in New England — dominate the "honor roll," with combined scores that, on average, are twice as high as the states earning *B*'s. They are joined this year by Hawaii and Nevada, whose strong employment growth, low levels of unemployment, and widely shared economic opportunities combined to pull them up into the top ten on Performance.

The two "nation-states" of California and New York also posted strong gains and might have been among the top ten, had it not been for the continuing wide disparities between the rich and poor that is characteristic of their economies — legacies of persistent urban poverty and high levels of immigration.

Looking ahead, the Performance Index suggests that labor shortages may become a significant drag on future growth in the Northeast. Employment growth has been sluggish in a number of states, especially in New England, despite unemployment in the low single digits. These states will lose momentum unless they are able to upgrade the very low skill levels of the people left behind — school dropouts, the long-term unemployed and underemployed, and dislocated workers, among others.

The *C* and *B* overall Performance grades earned by many Rust Belt manufacturing economies confirms the ripple effect of industrial restructuring. The cutbacks and plant closings that only a few years ago threatened to turn the upper Midwest into an industrial wasteland have yielded to many vigorously competitive industries, new and old. As we will see, the region still has a long way to go to recoup the job losses they experienced at the beginning of this decade, but the jobs being created are good ones and prospects are brighter than they have been for some time.

That's more than we can say for the energy, extraction and agricultural states of the South and Mountain West. Eleven of the 15 states earning *D*'s or *F*'s overall in the Performance Index depend to a significant extent on extraction and energy industries — sectors that have yet to rebound from the near collapse they experienced a few years ago. The remainder are largely agricultural and are only beginning to rebound from the recent farm crisis. Poorly diversified, none of these states has growing sectors to take up the slack, and recovery is a distant prospect.

Employment Subindex Findings

On first glance, the states earning the highest grades in the Employment subindex seem a mixed bag. And yet they have a strong common thread: each contains, or lies immediately adjacent to, at least one booming metropolitan area. There is, in fact, a high degree of correlation between the leaders in the overall employment rankings and the *Inc.* magazine 1989 annual ranking of metropolitan economies.[4] The leaders in this subindex have cities with high business birthrates and rates of business growth, and strong financial and transportation centers — or, as in the case of Maine, New Hampshire, and Rhode Island, are in close proximity to them. The "upside" of these conditions is strong employment growth. The "downside" for many of these states, however, is a sharp difference in employment and earnings opportunities between urban and rural areas — something we address in a later subindex. Examples include North Carolina, Virginia, Georgia and Maine.

At the opposite extreme, not surprisingly, are the energy states whose economies have been crippled ever since the bottom dropped out of the oil market. Just above them, still struggling with the after-effects of restructuring, are the heavy industry states of the Midwest. But even here, there are surprises: Michigan and Wisconsin, both of which rank among the bottom 10 states in *Long-Term Employment Growth*, also rank in the *top* 10 states in *Short-Term Employment Growth* — a clear sign of a turnaround underway. That's the good news. The bad news for the Midwestern states is that problems remain: while large numbers of new jobs are being created, and many appear to pay good wages, a poor showing in the *Unemployment Duration* measure suggests they are not reaching all the workers displaced earlier in the decade.

The Employment subindex harbors two other intriguing trends. First, the six New England states have among the lowest unemployment rates in the nation but, except for Maine and New Hampshire, they do not have especially high rates of employment growth. Having been the harbingers of both the deterioration of America's industrial sector and its resurgence, these results may also be early warning signs of the stagnating effect of the emerging labor shortage.

Second, there are faint signs that the growth of the "New South" may be slowing. Georgia, which has tended to be a bell-wether here, has long-term employment growth that ranks it 8th in the nation, but in short-term growth, it ranks only 23rd. Whether other fast-growing southern states, like North and South Carolina, will follow suit remains to be seen.

Earnings & Job Quality Subindex Findings

The rankings in this subindex demonstrate that good jobs at good wages are still to be found predominantly in the complex industrial economies of the Frostbelt, economies with resurgent manufacturers and strong business services and finance sectors. A few states ranking in the top 20 here (for example, Virginia and Georgia) appear to attain their high grades largely on the strength of their booming urban centers; their rural areas are struggling.

The Earnings and Job Quality subindex also captures a sense of the sacrifice workers have made in rebuilding the competitiveness of the industries in the upper Midwest. Wage rates, while generally higher than the national average, have not grown substantially in some of these states, reflecting wage concessions by unions and hold-the-line policies on the part of employers who are busy investing earnings in competitiveness-enhancing technologies.

The average annual pay growth measure in this subindex may also document the wage-raising effect of labor shortages in the Northeast. *All* the leading states in this measure — that is, states with rapidly increasing wage rates — are from the labor-short Northeast.

The states at the bottom of this subindex are, as expected, from the chronically poor South and acutely poor Mountain West. The economies paying their workers the lowest average wages are concentrated in the deep South and in the thinly-populated and largely agricultural states of the northern Great Plains. In contrast, the states with the lowest wage *growth* are almost exclusively energy states, with two states — Wyoming and Alaska — actually posting net declines in wages. States like these, with low wage rates and low wage growth, are often touted as having "good business climates." The irony of this position is that the low wage rates of these states are part of a pattern of poor economic capacity, not high potential. The generally poor performance these states turn in throughout all of the *Report Card* indexes illustrates that the principal economic barrier they face is not the short-term effects of cyclical economic shocks, but the fundamental weakness of their economies — economies that offer poor prospects for growth.

Equity Subindex Findings

The standings in the Equity subindex tell us some interesting things about a key component of any state's economic climate — that is, the extent to which economic opportunity, as measured by employment and earnings, is distributed widely among all segments of the population.

The states that lead the Equity subindex this year are not dramatically different than last year, despite revision of the measures used. At the top are the Northeastern states that dominate the *Report Card* overall, states creating well-paying jobs at such an extraordinary rate that virtually anyone who wants to work, and has the skills, has the opportunity to do so. Also at or near the top are states which are relatively homogeneous — that is, states that have relatively few minorities, little difference between rural and urban economic opportunities, and so forth. These include states like Nevada, Wyoming, and Utah.

At the other end of this subindex are states that have had a history of disparity between rich and poor, including most of the deep South, some western states with significant Native American populations, and heavily urban states with significant minority and immigrant populations.

But the most significant finding in the Equity subindex — indeed perhaps the most sobering finding of the entire *Report Card* — is that the gap between rich people and poor people, as measured by the change in income distribution between 1980 and the period of 1984-86, increased in every state in the union but three.

Performance Data

	EMPLOYMENT								EARNINGS & JOB QUALITY							
	Emp. Growth Long-Term		Emp. Growth Short-Term		Unemployment Rate		Unemployment Duration		Average Annual Pay		Avg. Annual Pay Growth		Health Coverage		Poverty Rate	
	%	Rank	%	Rank	%	Rank	%	Rank	$	Rank	%	Rank	%	Rank	%	Rank
Alabama	11.57	26	2.86	18	7.8	39	14.6	32	18,318	35	3.9	23	66.5	44	21.5	47
Alaska	**25.22**	**4**	**-3.15**	**49**	**10.8**	**48**	**17.7**	**42**	**28,008**	**1**	**-1.5**	**50**	**71.6**	**38**	**10.4**	**8**
Arizona	27.82	2	3.30	14	6.2	26	6.3	4	19,610	20	3.9	23	73.5	31	13.4	26
Arkansas	**7.58**	**33**	**2.29**	**25**	**8.1**	**41**	**11.3**	**24**	**16,529**	**45**	**2.3**	**42**	**65.3**	**47**	**22.4**	**48**
California	18.44	10	3.94	8	5.8	24	10.8	21	23,100	5	5.0	15	67.9	43	13.4	26
Colorado	**13.08**	**21**	**-0.19**	**45**	**7.7**	**38**	**15.2**	**36**	**20,736**	**11**	**2.3**	**42**	**74.1**	**29**	**10.8**	**10**
Connecticut	12.21	24	1.29	36	3.3	4	9.6	12	24,322	3	8.0	1	80.2	9	7.2	2
Delaware	**19.31**	**7**	**3.42**	**13**	**3.2**	**2**	**10.4**	**20**	**20,764**	**10**	**5.7**	**9**	**76.1**	**24**	**11.3**	**14**
Florida	30.11	1	5.27	3	5.3	18	8.6	7	18,674	31	5.6	10	70.1	39	13.3	25
Georgia	**19.17**	**8**	**2.35**	**23**	**5.5**	**20**	**6.2**	**2**	**19,651**	**19**	**4.8**	**17**	**73.3**	**33**	**15.6**	**36**
Hawaii	20.20	6	5.45	1	3.8	6	9.6	12	19,091	24	5.5	11	80.6	6	9.9	6
Idaho	**6.00**	**37**	**0.23**	**40**	**8.0**	**40**	**11.4**	**25**	**17,062**	**44**	**2.6**	**36**	**72.5**	**35**	**16.4**	**40**
Illinois	3.60	45	1.72	30	7.4	34	17.9	43	22,250	8	3.8	25	75.4	26	15.0	33
Indiana	**4.39**	**42**	**0.08**	**42**	**6.4**	**30**	**14.8**	**34**	**19,692**	**18**	**3.5**	**29**	**78.0**	**15**	**12.2**	**19**
Iowa	0.15	49	2.19	26	5.5	20	15.8	38	17,292	42	4.2	19	80.4	8	16.5	41
Kansas	**5.64**	**38**	**2.87**	**17**	**4.9**	**14**	**9.7**	**15**	**18,424**	**34**	**2.7**	**34**	**80.1**	**11**	**11.2**	**12**
Kentucky	1.36	47	0.19	41	8.8	45	21.2	48	18,008	37	3.7	27	65.3	47	18.5	44
Louisiana	**6.10**	**36**	**-0.58**	**47**	**12.0**	**50**	**25.0**	**49**	**18,707**	**30**	**2.3**	**42**	**65.0**	**49**	**20.8**	**46**
Maine	17.47	13	5.34	2	4.4	12	10.8	21	17,447	41	6.9	3	76.8	20	11.1	11
Maryland	**13.30**	**19**	**2.30**	**24**	**4.2**	**9**	**9.5**	**10**	**21,324**	**9**	**6.0**	**8**	**78.9**	**14**	**8.5**	**3**
Massachusetts	9.21	29	1.54	32	3.2	2	9.3	9	22,486	7	7.5	2	80.5	7	8.8	4
Michigan	**4.21**	**43**	**3.59**	**11**	**8.2**	**42**	**16.5**	**40**	**23,081**	**6**	**1.6**	**47**	**76.2**	**23**	**14.4**	**30**
Minnesota	8.56	30	1.21	38	5.4	19	12.5	28	20,450	14	4.2	19	79.9	12	11.5	15
Mississippi	**6.67**	**34**	**1.35**	**35**	**10.2**	**47**	**20.7**	**46**	**15,938**	**49**	**3.4**	**30**	**62.4**	**50**	**25.6**	**50**
Missouri	10.06	28	1.60	31	6.3	28	9.5	10	19,601	21	3.6	28	75.8	25	14.3	29
Montana	**5.63**	**39**	**-0.26**	**46**	**7.4**	**34**	**18.8**	**44**	**16,438**	**47**	**2.2**	**46**	**73.5**	**31**	**16.3**	**39**
Nebraska	4.15	44	-0.12	43	4.9	14	11.0	23	16,526	46	2.6	36	77.3	19	14.6	31
Nevada	**27.01**	**3**	**4.21**	**7**	**6.3**	**28**	**7.6**	**6**	**19,521**	**22**	**4.2**	**19**	**77.7**	**18**	**12.4**	**21**
New Hampshire	23.03	5	4.89	4	2.5	1	5.5	1	19,414	23	6.1	7	84.4	2	5.6	1
New Jersey	**12.69**	**22**	**2.46**	**21**	**4.0**	**8**	**10.0**	**16**	**23,842**	**4**	**6.9**	**3**	**80.7**	**5**	**9.5**	**5**
New Mexico	16.66	14	1.28	37	8.9	46	12.0	26	17,767	39	2.7	34	66.3	46	20.7	45
New York	**7.83**	**31**	**2.47**	**19**	**4.9**	**14**	**14.9**	**35**	**24,634**	**2**	**6.2**	**6**	**72.3**	**36**	**15.2**	**34**
North Carolina	15.11	16	3.90	9	4.5	13	9.1	8	17,861	38	5.1	14	74.5	28	14.0	28
North Dakota	**7.64**	**32**	**0.32**	**39**	**5.2**	**17**	**12.1**	**27**	**16,157**	**48**	**2.4**	**40**	**80.8**	**4**	**14.9**	**32**
Ohio	2.48	46	1.54	32	7.0	33	20.9	47	20,568	12	3.3	32	76.5	21	12.4	21
Oklahoma	**12.63**	**23**	**-1.66**	**48**	**7.4**	**34**	**16.2**	**39**	**18,615**	**32**	**1.5**	**48**	**69.6**	**40**	**15.5**	**35**
Oregon	11.06	27	4.38	6	6.2	26	9.6	12	18,888	26	3.1	33	73.0	34	12.6	24
Pennsylvania	**6.34**	**35**	**1.46**	**34**	**5.7**	**23**	**15.3**	**37**	**20,408**	**15**	**5.2**	**12**	**80.2**	**9**	**12.4**	**21**
Rhode Island	13.80	18	2.40	22	3.8	6	6.2	2	18,858	27	6.3	5	85.0	1	11.2	12
South Carolina	**14.73**	**17**	**3.05**	**16**	**5.6**	**22**	**14.4**	**31**	**17,279**	**43**	**4.1**	**22**	**73.7**	**30**	**17.6**	**42**
South Dakota	4.71	41	2.06	28	4.2	9	14.6	32	14,963	50	3.4	30	77.9	16	16.2	37
Tennessee	**11.92**	**25**	**3.44**	**12**	**6.6**	**32**	**10.3**	**18**	**18,501**	**33**	**4.8**	**17**	**68.0**	**42**	**17.8**	**43**
Texas	17.89	12	2.17	27	8.4	43	13.2	29	20,463	13	2.6	36	66.5	44	16.2	37
Utah	**18.22**	**11**	**-0.14**	**44**	**6.4**	**30**	**10.2**	**17**	**18,303**	**36**	**2.5**	**39**	**76.4**	**22**	**11.9**	**18**
Vermont	18.60	9	2.47	19	3.6	5	6.5	5	17,703	40	5.0	15	77.9	16	10.2	7
Virginia	**15.90**	**15**	**3.88**	**10**	**4.2**	**9**	**10.3**	**18**	**19,963**	**17**	**5.2**	**12**	**79.4**	**13**	**10.6**	**9**
Washington	13.30	19	3.12	15	7.6	37	14.1	30	20,110	16	2.4	40	71.9	37	11.7	16
West Virginia	**-7.90**	**50**	**1.94**	**29**	**10.8**	**48**	**31.8**	**50**	**18,820**	**28**	**2.3**	**42**	**68.2**	**41**	**22.8**	**49**
Wisconsin	4.83	40	4.49	5	6.1	25	19.3	45	18,890	25	3.8	25	81.3	3	11.8	17
Wyoming	**0.91**	**48**	**-4.57**	**50**	**8.6**	**44**	**17.1**	**41**	**18,817**	**29**	**-0.8**	**49**	**74.6**	**27**	**12.3**	**20**

Please refer to *Performance Data Sources* and the *Performance Index* text for further detail on individual measures.

EQUITY						ENVIRONMENTAL HEALTH AND SAFETY*												
Distribution of Income		Change in Income Dis.		Nonmetro/Metro Poverty		Crime Rate per 100 pop.		Environmental Quality								Infant Mort. per 100M birth		
								Air Quality		Superfund Dmp. per million pop.		Hazard. Waste tons per cap.		Surface Water Discharge				
Score	Rank	%	Rank	Ratio	Rank	Rate	Rank	Score	Rank	Sites	Rank	#	Rank	%	Rank	Deaths	Rank	
.414	48	−8.7	31	1.00	3	4.5	18	0.30	18	2.94	12	1.61	43	7.5	20	13.3	49	Alabama
.374	27	0.5	3	1.91	43	5.4	32	0.45	27	1.90	5	0.09	1	1.5	5	10.8	33	Alaska
.375	30	−6.8	20	1.00	3	7.2	48	1.12	45	2.66	10	0.30	7	9.1	28	9.4	15	Arizona
.394	39	−1.8	5	1.61	34	4.2	14	0.00	1	4.19	26	1.60	42	14.0	41	10.3	28	Arkansas
.380	35	−5.8	15	1.61	34	6.5	42	1.45	50	3.18	17	0.60	20	7.4	19	8.9	7	California
.372	26	−13.8	45	2.23	47	6.5	42	0.59	31	4.85	32	0.46	14	4.2	12	8.6	4	Colorado
.344	4	−6.5	18	1.00	3	5.0	28	0.84	40	4.36	29	1.25	34	15.8	44	9.1	9	Connecticut
.348	5	−2.7	7	1.00	3	4.9	26	0.86	41	32.61	50	1.39	39	13.9	40	11.5	41	Delaware
.394	39	−8.5	29	1.00	3	8.5	50	0.38	25	4.24	27	0.24	4	10.0	32	11.0	35	Florida
.392	38	−8.9	33	2.86	49	5.8	36	0.41	26	2.09	6	0.53	17	6.9	18	12.5	47	Georgia
.348	5	1.1	2	1.72	39	5.8	36	0.00	1	5.54	33	0.16	2	7.7	22	9.3	14	Hawaii
.356	10	−5.6	14	1.63	36	4.2	14	0.19	14	4.01	23	1.29	35	1.6	6	11.3	38	Idaho
.376	32	−8.4	28	1.00	3	5.4	32	0.65	34	3.37	20	1.33	37	13.2	38	12.1	45	Illinois
.350	7	−13.3	44	1.00	3	4.1	11	0.33	21	6.69	37	1.75	46	22.7	47	11.3	38	Indiana
.386	36	−21.0	50	0.72	2	4.1	11	0.00	1	8.12	40	0.65	21	5.1	15	8.5	2	Iowa
.355	9	−8.2	27	1.92	44	4.9	26	0.19	14	4.44	30	1.00	29	3.6	11	8.9	7	Kansas
.388	37	−14.5	47	1.00	3	3.3	5	0.35	23	4.56	31	1.23	33	2.9	8	9.8	21	Kentucky
.424	49	−12.5	43	2.13	46	5.9	38	0.12	11	2.47	8	3.05	50	11.6	35	11.9	44	Louisiana
.358	12	−9.5	35	1.00	3	3.5	8	0.17	13	6.74	38	0.26	5	7.7	22	8.8	6	Maine
.367	21	−7.6	23	1.00	3	5.5	34	1.01	43	2.21	7	0.67	23	10.2	33	11.7	43	Maryland
.362	19	−4.6	11	1.00	3	4.7	23	1.25	46	3.76	22	0.73	25	8.1	25	8.5	2	Massachusetts
.379	33	−13.8	45	1.00	3	6.5	42	1.06	44	8.80	42	1.29	35	29.6	50	11.4	40	Michigan
.360	16	−4.1	9	1.69	38	4.6	19	0.60	32	9.42	44	0.46	14	12.5	36	9.2	12	Minnesota
.403	45	−7.5	21	1.50	31	3.4	6	0.00	1	1.14	2	1.06	30	2.4	7	12.4	46	Mississippi
.368	23	−6.4	17	1.75	41	4.7	23	1.00	42	4.12	25	1.13	32	8.6	26	10.7	31	Missouri
.375	30	−5.0	12	1.00	3	4.6	19	0.00	1	12.36	46	0.77	27	8.9	27	9.6	20	Montana
.369	25	−10.1	37	1.00	3	4.1	11	0.13	12	3.14	15	0.27	6	2.9	8	10.1	25	Nebraska
.358	12	−10.5	38	1.00	3	6.4	41	0.79	39	0.00	1	0.37	10	11.1	34	9.1	9	Nevada
.321	1	−1.9	6	1.00	3	3.4	6	0.34	22	14.19	47	0.41	12	0.0	1	9.1	9	New Hampshire
.360	16	−4.3	10	1.00	3	5.3	30	1.32	48	14.34	48	1.74	44	18.6	46	9.8	21	New Jersey
.427	50	−15.4	48	1.51	33	6.5	42	0.32	20	6.67	36	0.38	11	2.9	8	9.5	18	New Mexico
.401	43	−9.3	34	1.00	3	6.0	39	1.30	47	4.26	28	0.52	16	12.7	37	10.7	31	New York
.374	27	−7.8	24	1.42	30	4.6	19	0.27	17	3.27	18	0.53	17	6.1	17	11.5	41	North Carolina
.359	14	1.4	1	1.72	39	2.8	3	0.00	1	2.98	14	0.35	9	4.3	13	8.4	1	North Dakota
.359	14	−7.5	21	1.00	3	4.6	19	0.49	29	2.97	13	1.74	44	22.8	48	10.6	30	Ohio
.402	44	−9.8	36	1.65	37	6.0	39	0.53	30	3.36	19	0.72	24	5.8	16	10.4	29	Oklahoma
.367	21	−10.5	38	1.00	3	7.0	46	0.47	28	2.57	9	0.33	8	0.0	1	9.4	15	Oregon
.365	20	−10.6	40	1.33	29	3.2	4	0.65	34	8.13	41	1.47	40	14.4	42	10.2	26	Pennsylvania
.353	8	−8.6	30	0.34	1	5.3	30	0.64	33	9.13	43	1.56	41	27.0	49	9.4	15	Rhode Island
.400	42	−5.5	13	1.00	3	5.2	29	0.00	1	6.13	34	1.07	31	7.5	20	13.2	48	South Carolina
.368	23	−3.1	8	3.28	50	2.7	2	0.00	1	1.41	3	0.21	3	0.0	1	13.3	49	South Dakota
.397	41	−10.9	41	1.00	3	4.7	23	0.78	38	2.68	11	2.70	48	8.0	24	11.0	35	Tennessee
.404	46	−6.6	19	1.50	31	7.7	49	0.72	37	1.67	4	2.03	47	4.6	14	9.5	18	Texas
.340	2	−6.2	16	1.81	42	5.6	35	1.38	49	6.55	35	0.58	19	16.7	45	8.6	4	Utah
.341	3	−1.2	4	1.00	3	4.3	17	0.00	1	14.60	49	0.41	12	13.5	39	10.0	24	Vermont
.374	27	−8.7	31	2.41	48	4.0	9	0.36	24	3.73	21	0.75	26	9.4	29	11.1	37	Virginia
.379	33	−8.0	26	1.00	3	7.0	46	0.71	36	9.48	45	1.35	38	15.6	43	9.8	21	Washington
.406	47	−19.8	49	1.00	3	2.2	1	0.26	16	3.16	16	2.95	49	9.9	31	10.2	26	West Virginia
.360	16	−7.8	24	2.03	45	4.2	14	0.31	19	8.11	39	0.65	21	9.8	30	9.2	12	Wisconsin
.356	10	−12.0	42	1.00	3	4.0	9	0.00	1	4.08	24	0.97	28	0.0	1	10.9	34	Wyoming

*Informational subindex only. This data was not used to calculate the *Performance Index* grades.

Performance Data Sources

Subindex One: Employment

Long-Term Employment Growth
Employment of workers on non-agricultural payrolls, 1979-1987. Percent change.
Source: Bureau of Labor Statistics, *Local Area Unemployment Statistics*, unpublished data diskette, 1988.

Short-Term Employment Growth
Employment of workers on non-agricultural payrolls, 1986-1987. Percent change.
Source: Bureau of Labor Statistics, *Local Area Unemployment Statistics*, unpublished data diskette, 1988.

Unemployment Rate
Percent unemployed, 1987.
Source: Bureau of Labor Statistics, *Local Area Unemployment Statistics*, unpublished data diskette, 1988.

Unemployment Duration
Percent of unemployed who were unemployed more than 27 weeks, 1987.
Source: U.S. Department of Commerce, *Geographic Profile of Employment and Unemployment* (Washington, DC: Government Printing Office, 1988).

Subindex Two: Earnings and Job Quality

Average Annual Pay
Average annual pay by location of establishment, 1987. Dollars.
Source: Bureau of Labor Statistics, press release, August 24, 1988.

Average Annual Pay Growth
Change in average annual pay, 1986-1987. Percent.
Source: Bureau of Labor Statistics, press releases, September 1987 and August 1988.

Health Coverage
Percent of the non-elderly population covered by primary health plan, 1986.
Source: Employee Benefit Research Institute, *Uninsured in the United States*, (Washington, DC: Employee Benefit Research Institute, October 1988).

Subindex Three: Equity

Poverty Rate
Persons living in household units with incomes below the poverty line, 1984-86. Percent of population.
Source: Robert D. Plotnick and Sheldon Danziger, "Poverty Rates by State in the Mid-1980s: An Update," *Focus*, Fall 1988.

Distribution of Income

Gini-coefficient for state, over the period 1984-1986. Score.

Note: Values closer to zero indicate more equality in the distribution of income and values closer to 1 indicate less equality.

Source: Sheldon Danziger and Jon Haveman, University of Michigan, unpublished tables, 1988. Calculations based on merged Current Population Survey data tape from March 1985, 1986 and 1987.

Change in Distribution of Income

Change in gini-coefficient for states, from 1980 score to 1984-1986 score (see *Distribution of Income* measure). Percent.

Note: A positive value indicates a decrease in income equality and a negative value indicates an increase in income equality.

Source: Sheldon Danziger and Jon Haveman, University of Michigan, unpublished tables, 1988. Calculations based on merged Current Population Survey data tape from March 1985, 1986 and 1987.

Non-metropolitan/Metropolitan Poverty

Ratio of non-metropolitan poverty rate to metropolitan poverty rate, 1985-86. States received a value of one if there was no significant difference between metropolitan and non-metropolitan poverty rates at the 90th percent confidence interval. Other states (New Jersey and Nevada) that received a value of one had too small a non-metropolitan population to permit a calculation of poverty rates, or had an overall population that was too low to calculate any regional poverty rate (Wyoming).

Source: Robert D. Plotnick, University of Washington Graduate School of Public Affairs, unpublished table, 1988. Compiled from March 1986 and March 1987 Current Population Survey.

Subindex Four: Environmental Health and Safety

Crime Rate

FBI index of serious crime rate per 100 residents, 1987.

Source: Department of Justice, *Crime in the United States, 1987* (Washington, DC: Government Printing Office, 1988).

Environmental Quality

- *Air Quality*

  Degree to which state residents live in areas that exceed national ambient air quality standards for ozone and/or carbon monoxide, 1986-87.

  Source: Environmental Protection Agency, Office of Air Quality, Planning, and Standards, news release, May 3, 1988. Calculations by The Corporation for Enterprise Development.

- *Superfund Dumpsites*

  Number of Superfund dumpsites per million population, 1986.

  Source: Environmental Protection Agency, "National Priorities List, Proposed Update #7," June 1988.

- *Hazardous Waste Generation*
  Metric tons of hazardous waste generated, per capita, 1986.
  Source: National Council on Public Works Improvement, "Hazardous Waste Management," prepared by Apogee Research, May 1987.

- *Surface Water Discharge*
  Percent of major municipal and non-municipal dischargers in significant non-compliance with established water quality standards specified on permit, 1987.
  Source: Environmental Protection Agency, Office of Water Enforcement and Permits, unpublished tables, 1988.

Infant Mortality

Infant deaths per 100,000 live births, 1986.
Source: National Center for Health Statistics, *Monthly Vital Statistics Report*, September 1988.

All per capita population calculations were made by The Corporation for Enterprise Development. Source: 1987 population, Bureau of the Census, Press Release December 30, 1987.

Endnotes

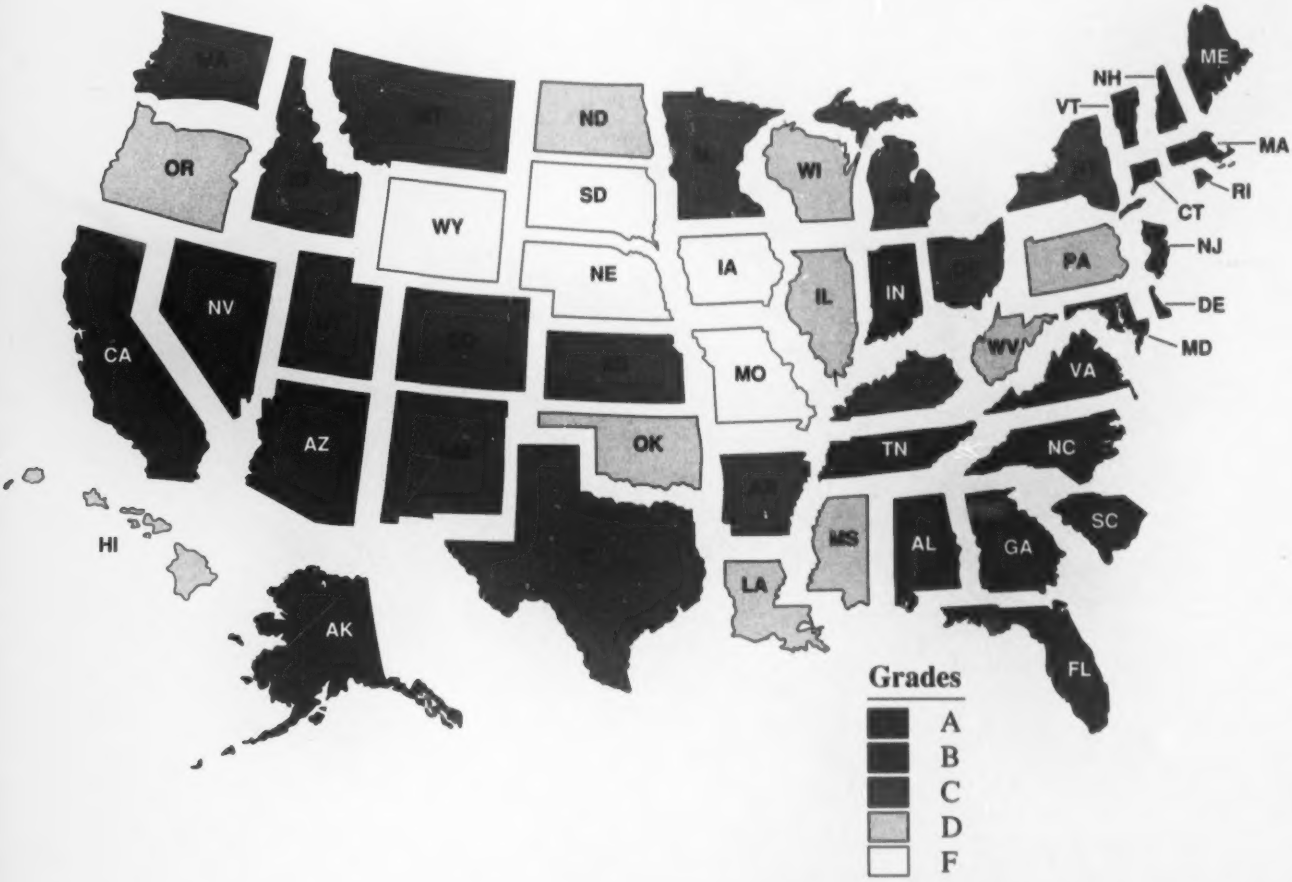
1. See Terry F. Buss, "Unemployment Rates and Their Implications for Human Resource Planning," *Journal of Economic and Social Measurement* 14 (1986).

2. Deborah Chollet, *Uninsured in the United States: The Non-elderly Population Without Health Insurance* (Washington, DC: Employee Benefits Research Institute, October 1988).

3. See, for example, Roger Schmenner, "Location Decisions of Large Firms: Implications for Public Policy," *Commentary*, January 1981; and Patricia L. Braden and Susan R. Rideout, "Location Decision-Making in Export-Oriented Business and Industry," unpublished paper, University of Michigan, 1978.

4. Joel Kotkin and Sara Baer-Sinnott, "Hot Spots," Inc., March 1989.

2 The Business Vitality Index


ME
NH
VT
MA
RI
CT
NJ
DE
MD
ND
OR
WI
SD
WY
NE
IA
PA
IL
IN
NV
CA
WV
MO
VA
AZ
OK
TN
NC
HI
SC
MS
AL
GA
LA
AK
FL
Grades
A
B
C
D
F

Business Vitality Report Card

	Business Competitiveness Subindex		Entrepreneurial Energy Subindex		Structural Diversity Subindex		FINAL GRADE	
	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade
Alabama	14	B	23	C	20	B	13	B
Alaska	**22**	**C**	**12**	**B**	**47**	**F**	**14**	**B**
Arizona	37	D	1	A	46	F	17	B
Arkansas	**21**	**C**	**42**	**D**	**4**	**A**	**32**	**C**
California	36	D	6	A	32	C	18	B
Colorado	**45**	**D**	**11**	**B**	**39**	**D**	**34**	**C**
Connecticut	6	A	22	C	5	A	4	A
Delaware	**1**	**A**	**5**	**A**	**15**	**B**	**1**	**A**
Florida	40	D	2	A	38	D	20	B
Georgia	**19**	**B**	**7**	**A**	**37**	**D**	**9**	**A**
Hawaii	48	F	14	B	35	C	38	D
Idaho	**34**	**C**	**23**	**C**	**11**	**B**	**27**	**C**
Illinois	29	C	45	D	33	C	44	D
Indiana	**5**	**A**	**37**	**D**	**36**	**D**	**19**	**B**
Iowa	33	C	50	F	40	D	50	F
Kansas	**34**	**C**	**27**	**C**	**6**	**A**	**30**	**C**
Kentucky	27	C	35	C	23	C	35	C
Louisiana	**38**	**D**	**32**	**C**	**48**	**F**	**43**	**D**
Maine	6	A	30	C	1	A	10	A
Maryland	**25**	**C**	**4**	**A**	**13**	**B**	**8**	**A**
Massachusetts	10	A	17	B	16	B	5	A
Michigan	**2**	**A**	**41**	**D**	**44**	**D**	**22**	**C**
Minnesota	17	B	33	C	18	B	24	C
Mississippi	**44**	**D**	**27**	**C**	**21**	**C**	**40**	**D**
Missouri	46	F	40	D	25	C	49	F
Montana	**32**	**C**	**31**	**C**	**3**	**A**	**31**	**C**
Nebraska	46	F	36	D	22	C	47	F
Nevada	**20**	**B**	**8**	**A**	**41**	**D**	**11**	**B**
New Hampshire	11	B	3	A	28	C	3	A
New Jersey	**12**	**B**	**16**	**B**	**17**	**B**	**7**	**A**
New Mexico	42	D	19	B	2	A	28	C
New York	**12**	**B**	**37**	**D**	**7**	**A**	**21**	**C**
North Carolina	16	B	21	C	12	B	12	B
North Dakota	**25**	**C**	**47**	**F**	**23**	**C**	**42**	**D**
Ohio	9	A	43	D	45	D	29	C
Oklahoma	**49**	**F**	**26**	**C**	**42**	**D**	**45**	**D**
Oregon	43	D	27	C	27	C	41	D
Pennsylvania	**18**	**B**	**43**	**D**	**43**	**D**	**39**	**D**
Rhode Island	23	C	39	D	9	A	33	C
South Carolina	**4**	**A**	**25**	**C**	**8**	**A**	**6**	**A**
South Dakota	50	F	34	C	10	A	46	F
Tennessee	**24**	**C**	**18**	**B**	**26**	**C**	**16**	**B**
Texas	39	D	9	A	31	C	25	C
Utah	**41**	**D**	**9**	**A**	**34**	**C**	**26**	**C**
Vermont	3	A	14	B	14	B	2	A
Virginia	**29**	**C**	**13**	**B**	**19**	**B**	**15**	**B**
Washington	27	C	20	B	30	C	23	C
West Virginia	**8**	**A**	**49**	**F**	**50**	**F**	**36**	**D**
Wisconsin	14	B	48	F	29	C	37	D
Wyoming	**31**	**C**	**45**	**D**	**49**	**F**	**47**	**F**

* To determine this Index's final grade, the *Competitiveness* and *Entrepreneurial Energy* subindexes were each assigned a weight of forty-five percent, and *Structural Diversity* ten percent. Please see *Appendix A* and the *Business Vitality Index* text for further explanation.

Economists, with that zest they have for catchy phrases, call it "The Agglomeration Principle." That's the tendency businesses have to flock together — to be born in, or relocate to, communities or regions that already are growing. "Silicon Valley" in northern California, and the Route 128 corridor around Boston are among the most famous recent examples, but the process is repeated to a greater or lesser extent wherever economies are growing, from "Automation Alley" in Michigan to "Sunset Corridor" in Oregon. Growth begets growth. It is every economic developer's dream.

Agglomeration occurs when a kind of economic "critical mass" is attained in a state or community — a combination of innovative and competitive businesses, skilled and motivated workers, and enlightened public policies that generates its own growth momentum. We explore the policy components of this chemistry in another index; here, in the Business Vitality Index, we focus on what it means for businesses.

When businesspeople ask about a state's business climate, what they're really asking is whether their business can succeed in the state. In many cases, the most straightforward answer is: "Look around. What you see is what you get." That is, if other businesses are succeeding, the chances are yours will too. In some states, a look around presents a bleak prospect, so economic development specialists package various incentives to induce outsiders to take a second look.

But the incentive approach is expensive and generally unsuccessful, for two reasons. First, upwards of 80 percent of the *net* employment growth in any state comes from existing businesses already in the state, and from new businesses formed by entrepreneurs already living in the state — not from outsiders who relocate. Second, unless the fundamentals — vital businesses and consistent public investments — are in place, most business owners will see through the inducements and seek their fortunes elsewhere.

Ultimately, therefore, the economic climate of any state is determined by the health and vitality of its businesses — businesses that create jobs, generate income, spawn and support other businesses, and expand economic opportunity. The more competitive those businesses, the faster new ones are being created and growing, and the more diverse they are, the stronger the overall economy will be — and the better the economic climate for others.

In order to characterize the vitality of businesses within a state, this index examines nine different measures gathered into three subindexes. The first looks at the competitiveness of existing businesses — how well they are doing and the extent to which they are investing in themselves. The second subindex measures the birth, growth and distribution of new businesses in the state. The third examines how diverse the state's economy is and, thus, how capable it is of withstanding cyclical shocks.

Subindex One: Competitiveness of Existing Businesses

The economic climate of any state is determined, in part, by the competitiveness of the businesses that already exist in the state — that is, by their ability, compared to their competitors, to marshal resources and develop new technologies to create and produce new goods and services for expanding world markets. To determine how businesses in each state are doing, we use three measures: traded sector strength, business failure rate, and investment in manufacturing machinery and equipment.

Traded Sector Strength

The engine of every state economy is its "traded sector" — the businesses that produce goods and services that are exported from the state and, thus, bring income into the state. Traded sector businesses also strengthen state economies even when they sell within the state, if their products or services displace imports from other states or nations. The strength of the traded sector can be measured by the sum total of its "value-added" — that is, the difference between the cost of the materials that go into a product and what it can sell for. Value-added measures the inflow and retention of wealth in a state economy.

Getting a handle on value-added, and thus on the strength of the traded sector, is no mean feat. In this measure, we take the principal indicator of value-added by each state's traded sector — *income* (wages, salaries, unincorporated profits, and so forth) — and divide it by the number of people employed statewide to adjust for differences in the sizes of states. (See *Appendix C* for a fuller explanation of this measure.)

Business Failure

Perhaps the most basic indicator of the competitiveness of the businesses in a state is simply whether they survive. At least theoretically, one might expect more business failures in states with high degrees of entrepreneurship, but we find that this often is not the case. States with a high degree of entrepreneurial energy often have relatively low rates of business failure. This suggests that high failure rates are an indication of economies in trouble. This measure does not include *all* business failures, just those that went into bankruptcy or receivership, or those that were otherwise involved in voluntary actions that resulted in actual losses to creditors.

Manufacturing Capital Investment

We know that what creates competitiveness and, therefore, business vitality is quality and innovation. We also know that what drives innovation is investment — the investments businesses make in people, products and physical plant. Of these, the only investments that currently are being measured state-by-state are those in manufacturing machinery and equipment.

We begin by measuring per worker investments in machinery and equipment (both new and used machinery, but not buildings). Then, to adjust for variations in the capital intensity of the economies of different states, we divide by value-added per worker. The resulting measure is not an ideal proxy for capital intensity, but it is the best tool currently available.[1]

Subindex Two: Entrepreneurial Energy

The rapid generation of new jobs (and the disappearance of old ones) is a central characteristic of the American economy. In fact, more than half the new jobs that will exist in any state in the next five years will be created by businesses that do not even exist today — businesses that often will be started by people who are not now in business and who already live in the state.[2] In addition, new firms perform a vital function in changing state economies: they replenish the jobs lost when larger companies pare their workforces to become more competitive, or when companies that fail to take such action close altogether. Finally, in state after state, it has become clear that some new businesses (which ones is impossible to predict) can spawn entire industries — and such industries tend to grow in close proximity to the "parent" firm.[3]

Most indigenous firms are small, and we know that small firms are key to economic competitiveness. And while innovation can occur in larger firms, smaller firms are generally more efficient at product and process innovations, less footloose, and able to react more quickly to changing economic circumstances.

New and small businesses are not without their own shortcomings, however. They are more likely to fail than established firms, tend to pay lower wages initially, and offer fewer benefits. On the other hand, they often provide entry opportunities for workers with no previous experience and limited skills, invest in training them and, thus, increase their future employability and mobility. And while these firms fail more frequently, the failure rate appears to be much lower than previously thought.[4] During the last recession, for example, you were more likely to lose your job through contraction or failure if you were employed in a firm with more than 100 employees, than in one with fewer than 100.[5]

To capture the entrepreneurial energy in a state, we look at five things: the birth rates of new businesses, the growth rates of new businesses, the level of entrepreneurship among minorities and women, and new enterprise growth rates in both metropolitan and non-metropolitan areas.

New Companies

Our measure in this subindex for identifying new companies is business formations per 10,000 workers in the state. Specifically, we measure the number of companies created after 1984 that were employing at least 10 people by January 1988. We are interested here in whether new firms reach a significant size, not simply in how many of them exist at any one time in a state.

We note that a weakness of any business formation rate is that it includes existing firms that have simply changed owners. Also, we continue to have to rely on modified Dun and Bradstreet data, because comparable sets of ES-202 file data of firm dynamics are unavailable. However, this problem is common to all states and introduces no bias that we can identify for or against any state.

Fast Growing Companies

We can get a pretty good picture of the level of vitality in a state economy by looking at the companies that are both young and rapidly-growing. The growth patterns of these young "high fliers" tells us something about their ability to meet emerging market needs and to initiate, adapt to and take advantage of change. In this measure, "fast growing" refers both to the number of jobs created *and* to the percentage of that growth. Thus we do not include large companies that may have added what appear to be a lot of jobs but which represent, in fact, only a slight overall percentage growth. By the same token, we do not include very small firms that may show a very high percentage growth, but which represents only a few jobs.

Minority and Women Business Ownership

Economies in which entrepreneurship is not widely distributed among all segments of the population — to include non-traditional entrepreneurs such as women and minorities — are missing out on sources of new economic growth. Equity in state economic performance can never be fully achieved unless all segments of the population have the opportunity to enter the "pool of entrepreneurs." Moreover, by encouraging minority and women entrepreneurs, states reap other important benefits: such businesses are more likely to put down roots in distressed communities, more likely to hire minority and women employees, and more likely to provide role models for future entrepreneurs in their communities, than are other firms.[6]

As with new companies, we have taken care in this measure to distinguish between entrepreneurial energy and entrepreneurial necessity. Both women and minority business ownership have risen sharply in recent years, but many of these firms have been created by individuals who, because of barriers to participation in the mainstream economy or simply insufficient resources, are self-employed as domestics, handymen, baby-sitters and the like. Even so, nationwide, minorities are less likely than non-minorities to own a business — 1.8 percent of the minority population owned businesses in 1982 compared to 6.4 percent in the population as a whole.[7]

In this measure we focus only on women and minority (black and Hispanic) -owned businesses (sole proprietorships, partnerships and Subchapter S corporations) with paid employees. In addition, we measure these firms in relation to population. Again we must emphasize that high self-employment rates — whatever the cause — are resources to be developed.[8]

Non-Metropolitan New Enterprise Job Growth
Metropolitan New Enterprise Job Growth

The "split-level" economy phenomenon — states with booming cities but struggling rural areas — can create a misleading picture when we are dealing solely with statewide data. In this subindex we use two measures to create more accurate pictures of state business growth. The first compares the number of jobs created in non-metropolitan areas by new business starts during the period 1980 through 1986 to the total number of jobs in those areas in 1980. The second does the same thing for metropolitan areas. Both are based on the SBA's *Small Business Database*.

We note again that a weakness of any business formation rate is that it includes existing firms that have simply changed owners. Also, we continue to have to rely on modified Dun and Bradstreet data because comparable sets of ES-202 file data of firm dynamics are unavailable. However, this problem is common to all states and introduces no bias for or against any state that we can identify.

Subindex Three: Structural Diversity

Diversity among traded-sector industries is essential to long-term business vitality, because it decreases vulnerability to sharp changes in the fortunes of any one industry. What is important is not that an economy *looks* diverse, with employment distributed across a variety of industries, but that it *acts* diverse — that is, when one industry is declining others are stable or growing.[9]

Structural Diversity

The measure we use in this subindex is the extent to which changes in employment in one traded industry parallel — or do not parallel — changes in other industries for each year between 1979 and 1987. However, the concept of structural diversity is easier to describe than it is to measure precisely. For example, a booming economy — one in which all sectors are growing simultaneously — will appear to be poorly diversified, even if it is not, because all sectors are moving in the same direction at once. In addition, occasionally an economy will turn out, upon closer inspection, to be less diversified than the measure suggests because while it has industry sectors that move in opposite directions, it has only a few of them. These peculiarities tend to show up only among the leading states in this measure; the majority are accurately portrayed. Nevertheless, this year we have reduced the weight given to this specific measure in order to diminish inappropriate effects on the subindex and index totals. (See *Appendix C* for a fuller explanation of this measure.)

Findings

The Business Vitality Index is an even more sensitive gauge of the current health of a state's economy than the Performance Index. Indeed the two are, in effect, different sides of the same coin. As a consequence, we would expect states that did well in one index to do well in the other, and that is largely the case. Eight of the states receiving *A*'s in the Performance Index — all of them in the Northeast — also lead the Business Vitality Index.

Still, there are important exceptions to the rule. For example, several southern states score well on the Business Vitality Index but not on the Performance Index, including South Carolina, Georgia, Alabama and Tennessee. In each of these states, existing businesses are competing well and new businesses are being created and growing at respectable rates. However, the benefits of this vitality are unevenly distributed. Minorities and women, for example, participate in business ownership at much lower levels than in many other states. Moreover, despite rapid growth, there continue to be sharp disparities between rich and poor in these states. It is unclear from the results whether these disparities are endemic to the kind of development occurring in these states, or whether the benefits have simply been slow to spread. Clearly, these states are gaining economic momentum, pulling away from decades in the doldrums and building strong, competitive economies. But we will have to wait for subsequent editions of the *Report Card* to see how the benefits of this resurgence are distributed.

At the bottom of this Index are states which tend also to rank at or near the bottom of the Performance Index. The characteristic common to them all is an absence of economic choice — that is, they possess economies vulnerable to either cyclical or structural change (or both) that have been slow to respond to shifting economic conditions, and they have little to fall back upon when boom turns to bust. Most have agricultural, energy or extraction economies, although there are a few old industrial economies that have not rebounded as robustly as their neighbors.

In addition to these general findings, there are intriguing results at the subindex level.

Competitiveness of Existing Businesses Subindex Findings

Michigan's #2 ranking in this subindex, and the generally strong performance of many other industrial states, underscores the tangibility of the recovery of the manufacturing sectors in our economy. The states that lead this subindex have well-developed economies that once again are producing high value-added goods and services and competing effectively with international rivals. An oddity in this group is West Virginia, whose existing businesses are undergoing the same restructuring as in other Frostbelt states, but are not of sufficient size to have generated the employment and earnings benefits the others have seen.

Not all states that score high in the Performance Index have strong existing businesses. For instance, Maryland, Virginia, and Hawaii have weak results in the Competitiveness subindex, largely because their traded sectors have low value-added and relatively low levels of business investment. These high-flying state economies are being powered more by the strength of entrepreneurial activity and the advantages of their location — for Maryland and Virginia, their nexus to the federal government, and for Hawaii, its uniquely beautiful setting.

The states at the bottom of this subindex tend to be commodity producers — states whose economic health depends upon high volume exports of largely undifferentiated, low value-added minerals, timber, energy resources and farm commodities that are exceptionally vulnerable to international competition and shifts in world demand. Among these states are South Dakota, Oklahoma and Nebraska.

This subindex also disproves a commonly-held belief that states with high levels of business formation will also experience high levels of business failures. The results simply do not substantiate this theory. Indeed, it seems to suggest the reverse: the "hotter" the economy, the lower the failure rate. The states with high business failure rates — Colorado, Oklahoma, Texas and Louisiana — are, quite simply, the states whose economies are in trouble across the board. By contrast, states with low business failure rates — Connecticut, Rhode Island, Maine and Delaware — are among the leading states in economic performance.

Entrepreneurial Energy Subindex Findings

At the simplest level, the results of this subindex suggest that fast-growing states will have high levels of entrepreneurship. The states leading this subindex have either experienced relatively rapid recent population growth overall, or have pockets of rapid population growth, and a correspondingly high level of new company formation. And yet this generality hides much more interesting stories.

The first is an apparent confirmation of the strength of the Frostbelt economic recovery. While the states in this region do not have high rates of new business formations, many do score very strongly on the number of fast growth companies within their borders, suggesting that much of this growth is occurring within relatively young companies that are newly competitive, not through new company births. States conforming to this pattern include Rhode Island, Pennsylvania, Michigan and Ohio, among others.

Conversely, several of the states that score high in the subindex overall and in the *New Companies* measure do not score well on the speed with which these new businesses are growing, including Colorado, New Mexico, Texas, Montana and Alaska. Since each of these states has undergone significant economic slumps in the last few years, it is likely that what we are seeing is a kind of "entrepreneurship of necessity" — that is, people forming businesses that substitute for jobs they have lost and that will permit them to continue living where they are. We may also be detecting the fact that new businesses in these states are running into real barriers to growth — whether it be lack of available financing or weak local markets to support their growth — which should be a great concern to economic development professionals. Still, high rates of new company formation is a good sign: new companies are promising new seeds from which future economic growth can be generated.

The new measures examining metropolitan and non-metropolitan enterprise growth also present some illuminating findings. For most states there is relatively little disparity between these two measures. But in Virginia, Vermont and several other states, new enterprise growth is clearly occurring in predominantly urban areas, while in Hawaii and Massachusetts, with heavily congested urban centers, the reverse is true. This new measure also adds an important perspective to the overall subindex — it allows us to evaluate not just how many companies are forming, but what their impact is on their local economy in terms of job generation. With this information in hand, we are able to better acknowledge states with meaningful entrepreneurial activity — especially those in the Sunbelt.

Finally, the minority and women business ownership measure tells us something interesting about the culture of enterprise. All of the leading states in this measure tend to be thinly-populated "frontier" states — like Montana, Vermont, North and South Dakota, Alaska and Maine, among others — states where women and minorities are not bound by tradition to conventional occupations. Not surprisingly, the states at the bottom of the measure are older East Coast and industrial Midwest states with less flexible traditions.

Structural Diversity Subindex Findings

A diverse economy is one in which the economic downturns, or "valleys," in one sector are offset by the economic upturns, or "peaks," in another. The effect of this balance is resilience in the face of rapid change.

At least in theory. The problem is that documenting the diversity of a state economy — that is, not how diverse it looks, but how it behaves — is, in some cases, extraordinarily difficult. The states that rank near the bottom of this list are ones we would expect to see there: the weak energy industry-dominated economies (West Virginia, Wyoming, Louisiana, Alaska, Oklahoma, Colorado, and so forth), and the heavy industry-dominated economies (Ohio, Michigan, Pennsylvania and Indiana, for example). And, for the most part, the states arrayed in the mid-range — earning *B*'s and *C*'s — also make sense. They are states with complex economies not disproportionately dependent upon any one sector.

There are, however, a few rankings that are more difficult to explain — like Florida and Georgia — which, somewhat perversely, get penalized because they are doing too well. That is, they do not have some sectors going up while others are going down; most of their sectors are increasing. Even after adjusting to take account of their strong overall employment growth, they appear poorly diversified. At this point, the jury still remains out on whether the various economic sectors in these states will not only grow together, but will also decline together — or whether their economic sectors are truly diversified and will demonstrate that their growth depends on independent factors.

Toward the top of the list we run into a few problems as well. Certainly states like New York, Connecticut and South Carolina have diversified economies and deserve high rankings. But Montana, New Mexico, Arkansas, Kansas and South Dakota appear in the top ten as well, and few would characterize their economies as highly diversified. These states are particularly vulnerable to a decline in only one industry: their problem is that they have traded sectors that are dominated by agriculture, which has declined, but also include other, much smaller industries that have grown. Thus, although they may *appear* diversified in this measure, as the residents of these states know only too well, improvements in non-agricultural industries have not mitigated the dislocation caused by agriculture's decline.

As a consequence of these weaknesses, we include this subindex for the insight it offers about many — though not all — state economies, but we also assign it very little weight in the index totals, so as not to skew the final results.

Business Vitality Data

	COMPETITIVENESS OF EXISTING BUSINESSES						ENTREPRENEURIAL ENERGY			
	Traded Strength per worker		Business Failure per 10,000 cos.		Mfg. Capital Investment		New Companies per 10,000 wkrs.		Fast Growing Companies	
	$	Rank	#	Rank	%	Rank	#	Rank	%	Rank
Alabama	6,553	29	63	16	7.57	13	11.2	23	2.54	30
Alaska	7,930	12	210	48	7.56	14	12.6	13	1.33	46
Arizona	5,675	43	100	27	6.45	22	19.6	1	4.00	3
Arkansas	6,516	30	75	21	6.46	21	9.1	35	1.83	41
California	7,642	14	146	42	5.84	32	12.5	14	3.59	7
Colorado	6,368	33	302	50	6.12	28	13.3	7	2.34	34
Connecticut	10,991	1	12	1	5.05	45	8.5	41	3.40	10
Delaware	10,106	2	20	3	10.89	4	11.3	22	3.95	4
Florida	4,368	50	106	31	7.31	16	18.2	2	3.06	16
Georgia	7,123	22	90	25	6.66	18	14.2	4	3.43	9
Hawaii	5,053	47	74	19	3.39	50	12.0	15	3.00	18
Idaho	6,331	35	155	43	8.23	9	10.9	26	1.47	45
Illinois	8,091	10	115	35	5.60	37	7.9	47	2.65	25
Indiana	8,790	5	105	30	8.03	10	9.1	35	2.77	24
Iowa	7,389	17	100	27	5.20	42	7.5	48	1.65	43
Kansas	7,056	23	125	39	6.33	25	11.5	19	2.34	34
Kentucky	7,148	21	113	33	6.15	27	11.8	17	2.13	36
Louisiana	5,683	42	180	46	9.93	5	10.5	27	1.90	40
Maine	6,176	37	20	3	9.09	7	10.5	27	3.26	14
Maryland	5,726	41	48	12	6.24	26	13.8	5	4.30	2
Massachusetts	8,366	7	43	9	5.62	36	9.2	33	3.91	5
Michigan	10,078	3	84	23	8.37	8	8.9	38	2.98	19
Minnesota	7,894	13	55	14	5.63	34	8.9	38	2.88	22
Mississippi	6,251	36	116	37	5.60	37	10.1	31	1.69	42
Missouri	6,446	31	117	38	5.18	43	9.2	33	2.37	33
Montana	4,459	49	109	32	13.24	3	12.7	12	1.15	48
Nebraska	7,045	24	134	41	4.59	47	7.5	48	2.05	37
Nevada	7,533	16	115	35	6.48	19	13.4	6	2.87	23
New Hampshire	7,998	11	47	11	5.90	31	14.7	3	4.46	1
New Jersey	9,812	4	37	6	5.12	44	10.3	30	3.33	12
New Mexico	4,726	48	67	17	5.24	40	13.3	7	1.96	38
New York	8,241	9	37	6	5.34	39	9.0	37	2.93	21
North Carolina	7,371	19	44	10	5.97	30	10.0	32	3.37	11
North Dakota	5,085	46	53	13	6.47	20	8.7	40	0.96	50
Ohio	8,539	6	79	22	6.35	23	8.0	46	2.96	20
Oklahoma	5,857	40	233	49	5.23	41	11.5	19	1.53	44
Oregon	6,150	39	89	24	4.91	46	11.4	21	2.46	32
Pennsylvania	7,605	15	55	14	5.76	33	8.2	44	3.20	15
Rhode Island	6,910	25	13	2	3.69	49	8.4	42	3.30	13
South Carolina	6,689	27	42	8	9.70	6	11.2	23	2.54	30
South Dakota	5,515	45	127	40	4.22	48	8.2	44	1.33	46
Tennessee	6,797	26	114	34	7.12	17	11.1	25	3.06	16
Texas	6,406	32	199	47	7.40	15	13.2	9	2.60	26
Utah	5,624	44	162	45	7.61	12	11.9	16	2.56	28
Vermont	6,614	28	29	5	13.74	2	13.0	11	3.48	8
Virginia	6,355	34	74	19	6.01	29	13.2	9	3.83	6
Washington	7,383	18	104	29	5.63	34	11.8	17	2.59	27
West Virginia	7,285	20	67	17	7.86	11	10.4	29	1.94	39
Wisconsin	8,253	8	99	26	6.34	24	8.4	42	2.55	29
Wyoming	6,157	38	161	44	52.19	1	7.3	50	0.97	49

Please refer to *Business Vitality Data Sources* and the *Business Vitality Index* text for further detail on individual measures.

ENTREPRENEURIAL ENERGY (continued)						STRUCT. DIVERSITY		
Min. & Women Bus. Ownship.		Nonmetro New Ent. Job Grwth.		Metro New Ent. Job Grwth.				
Score	Rank	%	Rank	%	Rank	Score	Rank	
0.52	34	38	21	39	27	0.43	20	Alabama
1.03	4	73	1	73	1	17.53	47	Alaska
0.63	24	57	2	66	2	14.68	46	Arizona
0.72	14	33	34	34	32	–2.69	4	Arkansas
0.62	25	48	6	47	16	4.71	32	California
0.77	12	43	8	52	8	7.33	39	Colorado
0.49	40	39	18	39	27	–2.46	5	Connecticut
0.51	35	40	14	66	2	–0.18	15	Delaware
0.78	11	51	5	55	7	6.89	38	Florida
0.56	31	39	18	48	14	6.72	37	Georgia
0.51	35	43	8	35	30	5.89	35	Hawaii
0.89	9	39	18	49	12	–0.61	11	Idaho
0.43	49	24	49	33	37	5.14	33	Illinois
0.64	23	32	35	32	39	6.64	36	Indiana
0.72	14	30	40	31	41	8.22	40	Iowa
0.70	18	37	22	34	32	–2.16	6	Kansas
0.60	28	32	35	31	41	1.14	23	Kentucky
0.68	21	32	35	43	20	18.49	48	Louisiana
1.02	5	37	22	26	50	–4.27	1	Maine
0.48	42	41	11	45	18	–0.31	13	Maryland
0.38	50	42	10	35	30	–0.17	16	Massachusetts
0.49	40	32	35	29	46	12.27	44	Michigan
0.61	26	30	40	40	25	0.10	18	Minnesota
0.61	26	37	22	49	12	0.52	21	Mississippi
0.59	29	34	31	32	39	1.23	25	Missouri
1.66	1	35	28	34	32	–3.19	3	Montana
0.76	13	30	40	56	5	1.06	22	Nebraska
0.54	32	53	3	48	14	8.28	41	Nevada
0.88	10	40	14	46	17	3.12	28	New Hampshire
0.48	42	41	11	41	23	0.07	17	New Jersey
0.95	8	37	22	42	22	–3.88	2	New Mexico
0.44	48	29	43	34	32	–1.38	7	New York
0.46	46	34	31	43	20	–0.36	12	North Carolina
0.96	7	35	28	31	41	1.14	23	North Dakota
0.48	42	29	43	33	37	13.58	45	Ohio
0.70	18	40	14	38	29	9.45	42	Oklahoma
0.72	14	37	22	34	32	2.24	27	Oregon
0.51	35	28	46	31	41	11.04	43	Pennsylvania
0.48	42	31	39	31	41	–1.12	9	Rhode Island
0.46	46	36	27	41	23	–1.36	8	South Carolina
1.08	3	35	28	51	10	–0.88	10	South Dakota
0.54	32	40	14	40	25	1.27	26	Tennessee
0.68	21	46	7	51	10	4.34	31	Texas
0.57	30	53	3	56	5	5.32	34	Utah
1.21	2	27	48	65	4	–0.30	14	Vermont
0.50	39	29	43	52	8	0.30	19	Virginia
0.70	18	34	31	45	18	3.23	30	Washington
0.71	17	23	50	28	48	31.43	50	West Virginia
0.51	35	28	46	29	46	3.20	29	Wisconsin
1.01	6	41	11	28	48	24.72	49	Wyoming

Business Vitality Data Sources

Subindex One: Competitiveness of Existing Businesses

Traded Sector Strength

Traded sector personal income per worker, 1987. Dollars.
Source: U.S. Department of Commerce, Bureau of Economic Analysis, *State Personal Income Summary Tables 1987*, August 1988; U.S. Department of Commerce, Bureau of Economic Analysis, *1985 OBERS BEA Regional Projections, Volume 1: State Projections to 2035*, 1985; U.S. Department of Commerce, Bureau of the Census, *State Expenditures by State for Fiscal Year 1987*, 1988; U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Wages: Annual Averages, 1986, Bulletin 2297*, December 1987; Jack Faucett Associates, *Summary of State Commodity Consumption and Production — Final Balance* (Bethesda: Jack Faucett Associates, undated). Calculations by Mt. Auburn Associates.
See *Appendix C* for more information on this measure.

Business Failure

Business failures per 10,000 concerns, 1987.
Source: Dun and Bradstreet, *Business Failure Record* (New York: Dun and Bradstreet, 1988).
"Failures" are businesses involved in bankruptcy or receivership proceedings, or voluntary actions involving losses to creditors.

Manufacturing Capital Investment

Investment in new and used manufacturing machinery and equipment as a percentage of manufacturing value added, 1986.
Source: U.S. Department of Commerce, Bureau of the Census, *1986 Annual Survey of Manufacturers: Geographic Area Statistics* (Washington, DC: Government Printing Office, 1988).

Subindex Two: Entrepreneurial Energy

New Companies

Number of companies founded in 1984 or later with at least ten employees by January 1988, per 10,000 (1984) workers.
Source: Joshua Hyatt, "1988 Report on the States," *Inc.*, October 1988; measure developed by Cognetics in Cambridge, Massachusetts. Number of workers from U. S. Small Business Administration, *Small Business Database*.

Fast Growing Companies

Percent of companies in the state founded after 1980 with a growth index of 20 or more for the period January 1984 to January 1988.
Source: Joshua Hyatt, "1988 Report on the States," *Inc.*, October 1988. Measure developed by Cognetics in Cambridge, Massachusetts.
The growth index is determined by multiplying the percent of job growth (in decimal terms) by the actual increase in the number of jobs. For example, a company which grew from 40 to 70 jobs would have an index of 22.5 — that is, (.75 x 30).

Minority and Women Business Ownership

Composite index of women-owned and minority-owned (black and Hispanic) businesses with paid employees, as a percent of all women and minorities in the labor force, 1982. Score.

Source: U.S. Department of Commerce, Bureau of the Census, *1982 Economic Censuses: Women-Owned Businesses* and *1982 Survey of Minority-Owned Business Enterprises* (Washington, DC: Government Printing Office, 1986). Calculations by The Corporation for Enterprise Development.

Non-Metropolitan New Enterprise Job Growth

Jobs from business births from 1980-1986 in non-metropolitan areas of a state as a share of total jobs in non-metropolitan areas of a state in 1980. Percent.

Note Connecticut's, New Jersey's and Rhode Island's non-metropolitan areas received same rate as their metropolitan areas.

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Database*, unpublished tables, 1987. Calculations by the Corporation for Enterprise Development.

Metropolitan New Enterprise Job Growth

Jobs from business births from 1980-1986 in metropolitan areas of a state as a share of total jobs in metropolitan areas of a state in 1980. Percent.

Note Alaska's metropolitan areas received same rate as its non-metropolitan areas.

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Database*, unpublished tables, 1987. Calculations by the Corporation for Enterprise Development.

Subindex Three: Structural Diversity

Structural Diversity

Sum of covariances of employment change for all pairs of traded sector industries, 1987. Score.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *State Employment Summary Tables*, August 1988.

Measure derived from formula that measures the diversity of percentage change in employment in state traded industries, 1979-87. Industry data at the 2-digit SIC level. Calculations by Mt. Auburn Associates.

See *Appendix C* for more information on *Structural Diversity* measure.

All per capita population calculations were made by The Corporation for Enterprise Development. Source: 1987 population, Bureau of the Census, Press Release December 30, 1987.

Endnotes

1. The ideal way to correct for bias towards states dominated by capital-intensive industries is to divide machinery and equipment investment by the current market value of existing machinery and equipment, which would yield the percentage of a state's equipment stock being replaced or upgraded in a given year. Unfortunately, estimates of such current market values do not exist. The second best means we could devise for correcting capital-intensity bias in the manufacturing investment measure was to divide by "value-added per worker." "Value-added per worker" is very much a function of the capital intensity of a state's industry mix, so the capital-intensity biases of *both* the investment *and* the value-added measures tend to cancel each other out. The weakness of using value-added is that it also is a function of other factors, that is, the productivity of the workforce and the level of machinery and equipment investment in prior years. This kind of "noise" in the measure can occur if the labor productivity and capital intensity of a state's industry is significantly different from the nationwide average for that industry.

2. See, for instance, U.S. Small Business Administration, *The State of Small Business* (Washington, DC: Government Printing Office, 1988); and David Birch, "The Job Generation Process," MIT Program on Neighborhood and Regional Change, 1979.

3. See for a discussion of the "agglomeration" of businesses, Jane Jacobs, *Cities and the Wealth of Nations* (New York: Random House, 1984); Harry Richardson, *Regional Economies: Location Theory, Urban Structure and Regional Change* (New York: Praeger, 1969); and D.E. Keeble, "Models of Economic Development," in R.J. Chorley and P. Haggett, *Models in Geography* (London: Methuen, 1967).

4. Bruce D. Phillips and Bruce A. Kirchhoff, "Formation, Growth and Survival: Small Firm Dynamics in the U.S. Economy," paper presented at the Babson Entrepreneurship Research Conference, May 1988.

5. Candee S. Harris, "The Magnitude of the Job Loss from Plant Closings and the Generation of Replacement Jobs: Some Recent Evidence," *The Annals of American Academy of Political and Social Science*, September 1984. See also Robert Meyer, "Structural Change and Job Dislocation," unpublished paper, The Brookings Institution, April 1984. While younger and smaller businesses are more likely to fail and close than older, larger firms, these loss rates are often overstated and are, in any case, overshadowed by firm birth and expansion rates. Less than one percent of all businesses fail each year with a loss to creditors. Of these, 80 percent have survived their first two years, with the big failure rates occurring in years three, four and five — by the end of which period 61 percent of the failures will have occurred. A larger percentage of businesses — eight to nine percent — close each year for a variety of other reasons, many having little to do with the intrinsic value of the business, and these too tend to be younger and smaller, though not exclusively so. Kibre Dawit and Robert Friedman, "Myths of Small Business Failure," *The Entrepreneurial Economy*, July 1982.

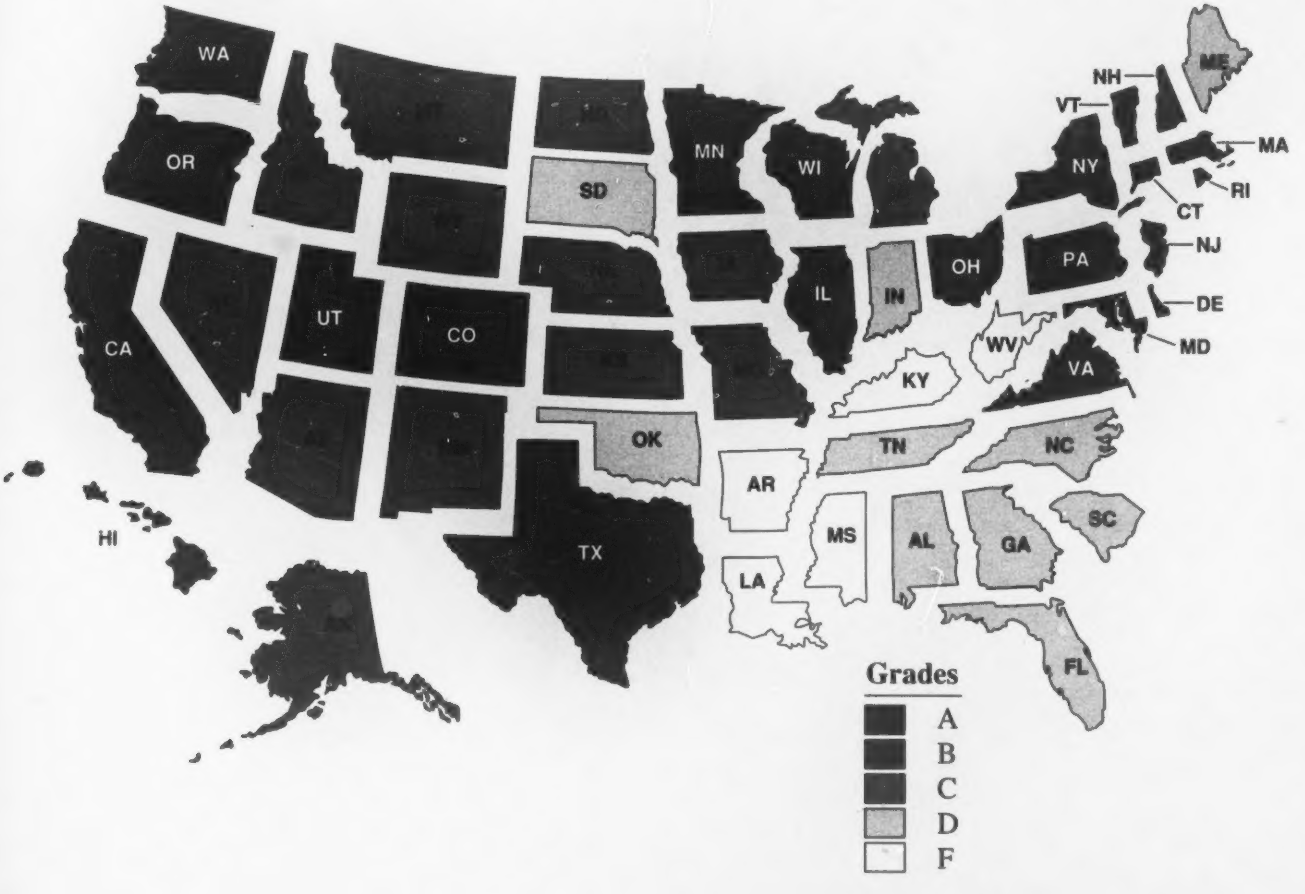
6. See, for example, Eugene P. Foley, "The Negro Businesswoman: In Search of a Tradition," *Daedalus*, Winter 1966; Federico V. Magdalena, "The Filipino Entrepreneurs of Hawaii: An Inquiry into their Roots and Success," unpublished doctoral dissertation, University of Hawaii, 1977; Bernard Saracheck, "Jewish American Entrepreneurs," *Journal of Economic History*, June 1980; David Caplovitz, *The Merchants of Harlem* (Beverly Hills, CA: Sage Publications, 1973); and Janice K. Demarest, "Women Minding Their Own Business: A Pilot Study of Independent Business and Professional Women and Their Enterprises," unpublished doctoral dissertation, University of Colorado, 1977. A survey of inner city businesses in Buffalo revealed that nearly 100 percent of full-time employees in black-owned firms were blacks, while only 21.5 percent of the employees of white-owned businesses were black. For a review of minorities and enterprise development, see The Corporation for Enterprise Development's *The Entrepreneurial Economy*, April 1984.

7. U.S. Small Business Administration, *The State of Small Business: 1987* (Washington, D.C.: Government Printing Office, 1987).

8. For each of the three groups of non-traditional entrepreneurs — women, blacks and Hispanics — we calculate the percentage of each group which operates businesses with paid employees. We then construct a single index of non-traditional entrepreneurship by combining the percentages for the three groups, with women accorded half the weight and blacks and Hispanics receiving one quarter each. We chose this weighting scheme to roughly take into account differences in the size of the population groups.

9. H.L. Brewer, "Regional Economic Stabilization: An Efficient Diversification Approach," *Review of Regional Studies*, 1987.

3 The Capacity Index


WA
OR
CA
UT
CO
SD
MN
WI
IL
IN
OH
PA
NY
NH
VT
ME
MA
RI
CT
NJ
DE
MD
VA
WV
KY
TN
NC
SC
GA
AL
MS
AR
LA
OK
TX
FL
HI
Grades
A
B
C
D
F

Capacity Report Card

	Human Resources Subindex		Technological Resources Subindex		Financial Resources Subindex		Infra./Amen. Resources Subindex		FINAL GRADE	
	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade
Alabama	42	D	33	C	45	D	47	F	45	D
Alaska	8	A	31	C	39	D	29	C	27	C
Arizona	33	C	13	B	17	B	21	C	21	C
Arkansas	41	D	50	F	48	F	48	F	49	F
California	30	C	3	A	4	A	9	A	6	A
Colorado	3	A	2	A	27	C	2	A	2	A
Connecticut	13	B	3	A	2	A	35	C	8	A
Delaware	27	C	9	A	6	A	7	A	7	A
Florida	46	F	38	D	16	B	32	C	40	D
Georgia	40	D	39	D	31	C	16	B	38	D
Hawaii	15	B	25	C	20	B	12	B	13	B
Idaho	10	A	31	C	35	C	36	D	33	C
Illinois	34	C	19	B	5	A	13	B	12	B
Indiana	36	D	25	C	30	C	42	D	41	D
Iowa	21	C	21	C	32	C	38	D	33	C
Kansas	11	B	35	C	26	C	38	D	30	C
Kentucky	47	F	49	F	40	D	41	D	46	F
Louisiana	50	F	43	D	42	D	43	D	47	F
Maine	27	C	42	D	36	D	21	C	38	D
Maryland	18	B	6	A	15	B	3	A	5	A
Massachusetts	14	B	1	A	1	A	23	C	4	A
Michigan	31	C	16	B	28	C	23	C	23	C
Minnesota	2	A	15	B	8	A	1	A	1	A
Mississippi	49	F	47	F	50	F	50	F	50	F
Missouri	34	C	24	C	23	C	27	C	29	C
Montana	1	A	45	D	38	D	34	C	35	C
Nebraska	6	A	36	D	37	D	5	A	21	C
Nevada	16	B	29	C	24	C	36	D	26	C
New Hampshire	17	B	23	C	14	B	46	F	24	C
New Jersey	23	C	17	B	3	A	29	C	13	B
New Mexico	31	C	6	A	46	F	28	C	31	C
New York	38	D	8	A	7	A	16	B	11	B
North Carolina	42	D	34	C	22	C	26	C	37	D
North Dakota	18	B	40	D	21	C	32	C	31	C
Ohio	25	C	13	B	28	C	10	A	17	B
Oklahoma	26	C	30	C	41	D	45	D	42	D
Oregon	22	C	25	C	19	B	6	A	13	B
Pennsylvania	29	C	12	B	9	A	14	B	10	A
Rhode Island	37	D	10	A	10	A	44	D	25	C
South Carolina	45	D	44	D	47	F	18	B	43	D
South Dakota	18	B	48	F	25	C	29	C	36	D
Tennessee	48	F	37	D	32	C	40	D	44	D
Texas	44	D	19	B	10	A	8	A	18	B
Utah	12	B	5	A	44	D	20	B	18	B
Vermont	3	A	28	C	12	B	15	B	9	A
Virginia	24	C	22	C	13	B	23	C	20	B
Washington	6	A	10	A	18	B	4	A	3	A
West Virginia	39	D	45	D	49	F	49	F	48	F
Wisconsin	9	A	18	B	34	C	11	B	13	B
Wyoming	5	A	41	D	43	D	18	B	27	C

3

CAPACITY

Today, perhaps more than at any time since the opening of the American frontier, the shape of our economic future depends upon working partnerships between business and government. The tasks are too big, the competition too strong, the costs too high, for either party to go it alone.

Our attention has been drawn to the relationship between governmental actions and business growth most recently by a chorus of demands from corporate executives that our schools begin to do a better job of preparing young people for the world of work. On this issue, and on others, our international competitors in Europe and the Far East are ahead of us; government-business partnerships have been an essential strategic component of their rapid rise in economic competitiveness in the last decade. Consequently, as our *Indicators of International Competitiveness* illustrate, America's economic performance has lagged the performance of other industrial nations on many fronts. (See *Appendix B*.)

But the prerequisite of partnership is not simply a national phenomenon; if anything, it is more crucial — and progress is often more evident — at the state and local levels where economic theory becomes business reality. A comparison between the results of the Performance Index and the Capacity Index, or even between the Business Vitality Index and the Capacity Index, underscores a supremely simple fact of economic life: states that have developed high levels of human, technological, financial and physical infrastructure capacity have much healthier economies than states that have not and, as a consequence, have more attractive economic climates. And how do states develop this capacity? Through years of sensitivity to, and investment in, the needs of their economies.

Both the decline of the industrial North and its recent resurgence, for example, are related directly to the question of capacity. Just as the dominant manufacturing industries and their suppliers took their dominance for granted and failed to develop or keep up with advances in production technology and market trends, so too did the dominant states take for granted their economic leadership. When restructuring swept the region, both were taken by surprise. The turnaround the states in this region have experienced lately derives its momentum from massive private and public investments in capacity. Businesses have made dramatic investments in new plant and equipment, new production systems, and new management structures. States have made similar investments in education reform, in upgrading and supporting institutions of higher education and R&D centers, in the regulation of capital markets, and in basic infrastructure.

There is nothing flashy about these investments; they don't capture the public imagination the way, for example, a ribbon-cutting ceremony does. The payoffs are long in coming and the costs are often substantial and come at a time when the state is least able to afford them. Ultimately, however, investing to build on inherent strengths makes more sense than trying to copy the success formulas of others. Economic successes are not easily borrowed and replicated. One currently reviving "Rust Belt" state flirted briefly with the idea of abandoning its old manufacturing economy in favor of a trendier high-tech information and services economy. In the end, however, development officials concluded: "The one thing we knew for sure was that this was a state where people knew how to make things; the trick was to figure how to make things competitively again."

The alternative to investing in development capacity is to be the low bidder in the branch plant location game. For years the southern states succeeded with this strategy by promoting their "attractive business climate" — low wages, cheap land, and abundant incentives. But when the incentives expired, or when even lower bidders appeared offshore, the factories disappeared, and they were left as undeveloped at the end of the game as they had been at the start. Today, thanks to the joint efforts of aggressive political leaders, committed businesspeople, and such organizations as the Southern Growth Policies Board, the South is rebuilding, investing in education, strengthening its technology resources, building economic infrastructure, creating strong capital markets, and building from within. With less capacity to begin with than the northern industrial states had, the South's turnaround will take longer. As their reports note, they are "halfway home, and a long way to go."

The four subindexes in the Capacity Index represent the most important state economic building blocks: human resources, technology resources, capital resources, and infrastructure and amenity resources.

Subindex One: Human Resources

Economic development is a profoundly human process. While each of the subindexes in this Index is important to state economies, what it takes is people — skilled, educated, adaptable, innovative people — to use these building blocks and create the structure of an economy. The more skilled the people, the stronger and more lasting the structure of the economy they build.[1]

The skills of a state's workforce, and the extent to which those skills are adaptable to changing economic circumstances, are the most basic components of its human resource base. The kind of diversified economic activity that will generate expanding opportunity and better-paying jobs demands an increasingly broad range of skills: language skills more comprehensive than just basic reading; computational skills more advanced than just arithmetic; reasoning skills, management and entrepreneurial skills, and personal and interpersonal skills of the sort needed in group production situations.

The demand for these skills is accelerating. A recent forecast commissioned by the Labor Department predicts that more than half of all new jobs generated between now and the year 2000 will require some education beyond high school.[2] The more the workforce possesses these skills and management makes use of them, the more competitive state economies will be.[3]

While we would like to be able to measure actual skill levels within and across industries in state economies, no such information exists. Instead, this subindex explores educational attainment measures, including high school graduation rates, adult illiteracy rates, and college educational attainment rates.

High School Graduation

In an economy in which the most basic qualification for most new jobs being created is high school completion, a state's economic competitiveness will be affected directly by its ability to produce new entrants to the workforce who meet this basic test of work-readiness. Despite differences from state to state in the level of competence associated with a high school education, not to mention the national controversy over the inadequate skills of those who do graduate, this measure is still the best baseline we have to gauge the skill level of tomorrow's workforce.

Adult Illiteracy

We also need to understand the skill level of a state's existing workforce if we are to assess the capacity of its economy to compete. Since nearly three-quarters of the year 2000's workforce is already out of school, competitiveness is directly related to the literacy levels of adults now in the workforce. Unfortunately, literacy requirements in today's workplace run well ahead of the measured data we have on adult literacy. Although we know a wide range of skills is needed to secure work in today's economy, the only comprehensive literacy data available for this measure is the U.S. Department of Education's "English Language Proficiency Survey." It assesses only reading ability and, at that, only whether adults read at the fourth grade level.

College Education Attainment

In an economy in which knowledge is itself a traded commodity, the higher the educational attainment of the population, the greater the capacity of the state's economy to compete. This measure identifies the percentage of the population aged 25 or older with at least a college education.

Subindex Two: Technological Resources

Technological innovation produces the seeds from which businesses and economies grow. This is true not just of "high tech" businesses but, increasingly, of *all* businesses — from steel to finance, auto parts to textiles. The rapid acceleration of technological innovation has had much to do with the widening recovery of the nation's industrial states. The computer industry rose from the ruins of Massachusetts' industrial past, for example, and robotics and machine vision technologies have played a key role in the renewed competitiveness of heavy manufacturing in the industrial Midwest.[4]

Technological innovation transforms state economies in three ways: by creating entirely new industries when research spawns new products that meet or create new market demand, by improving existing products and rejuvenating existing markets, and by changing production processes in ways that lower costs, improve quality, or both. Often these are small advances, incremental increases in efficiency that provide a slight, often temporary, competitive edge. The more frequently these incremental advances occur, the stronger the state economy and the greater the growth in direct and indirect employment and income. Moreover, innovation begets innovation. That is, as the pool of innovators and the investments in research and development in a state increase, the number of businesses spawned or attracted by the innovation grows, reducing out-migration and increasing in-migration of workers and technicians and, in the process, generating new applications of the technologies being developed — and more new businesses.[5]

People — highly trained management and technical specialists — and money — expenditures in research and development — drive this process. Accordingly, this subindex examines the potential pool of innovators in a state, and the pool of dollars devoted to research.

Scientists and Engineers in the Workforce

The larger the potential pool of innovators in a state, the greater the likelihood that the capacity for innovation will become the reality of innovation. Not all innovators are scientists or engineers, and not all scientists and engineers are innovators. But there is a direct correlation between the technical capacity of the labor force and an economy's ability to generate new technology-based or -enhanced businesses, and that is what we seek to measure here.

Science and Engineering Doctoral Students

This measure indicates how extensive science training is in a state, though not the number of degree recipients who stay in the state. Nevertheless, the history of industrial innovation indicates that new businesses are spawned, more often than not, in the same place entrepreneurs received their degrees. Thus, as above, we can indirectly measure the capacity for innovative business development by assessing the technical strength of the workforce.

Patents Issued

This measure aims to capture the *rate* of innovation in a state. It is imperfect in that patents generally are issued at the location of the company headquarters, not necessarily the lab where the innovation is developed.

University Research and Development

The close correlation between world-class university research institutions and commercial spin-off businesses has been lost on no state. Interest in the research agendas of major educational institutions has risen sharply. Budget allotments to public universities have also increased. And new university-government-industry partnerships are being formed. This measure gives us a rough approximation of the scale of research and development spending at universities in each state and, indirectly, the capacity for associated business development.[6]

Federal Research and Development

There is a similar correlation between federal R&D spending and new business spin-offs. But the relationship varies significantly, depending upon what *kind* of research is underway. In states where much of the federal research is classified, the problem of getting the results "over the fence" and into the state economy can be considerable.

Subindex Three: Financial Resources

The relative availability of capital in a state sends a signal to would-be entrepreneurs that their ideas can become businesses in that state, and at the same time provides the wherewithal for businesses already in the state to continue to grow. The more developed the network between financiers — bankers, venture capitalists and others — and businesspeople and state economic development officials, the greater the capacity for growth in the state.

The kind of capital a business requires depends on what stage of development it is in. In its infancy, as ideas are being developed and commercialized, a business needs small amounts of "patient" money —

equity and long-term debt. As it matures and expands, it needs larger amounts of equity, working capital to finance its inventory, marketing and accounts receivable, and debt financing to acquire land, buildings and equipment. To stay competitive, it may also need long-term debt and equity to finance retooling and, in some cases, ownership changes. The unavailability of capital at any of these stages can bring the entire enterprise to a halt.

State officials and business owners alike often express concern about "capital gaps" in their state — the perceived unavailability of money for expansion or start-ups, for example. Often the problem isn't that capital does not exist within the state, but that it's not accessible to the kinds of businesses that need it. Sometimes, the problem isn't even that capital is inaccessible, but instead that there is a shortage of credit-worthy business proposals.

But fundamentally, capital availability depends upon both the underlying capital resources of the state's financial institutions *and* how aggressively those institutions invest those resources in local businesses. While capital markets are increasingly national, and even international, there are still wide variations in capital availability from state to state. Some states have more competitive commercial and investment banking than others. Not all bank services and products are available universally. Formal venture capital, while increasingly mobile, still tends to be invested near where the venture firm is based, so that it can be monitored easily. And the *level* of financial resources that can be made available varies from state to state. Thus, the extent of capital gaps and their effect on development can differ significantly across the nation.

The measures in this subindex cover a range of financing needs, from risk capital to fixed-asset financing and working capital available from commercial banks. Because of the limitations of published financial data, these measures cannot tell us what kinds of business are receiving financing (their size, sector, location, or stage of development), about the specific types of financial instruments provided, or how the financing is used.

Moreover, there are other players in the capital marketplace. They are not included here for several reasons. Thrift institutions, for example, are now able to provide business loans, but they have been slow to enter the market and are not, as yet, important sources of business capital. Commercial finance companies, while increasingly important sources of capital for small businesses, are not regulated, and little information is available about their impact on a state-by-state basis.[7] Insurance companies are another source of capital for corporations, but state-by-state data on their business-lending activities are not available.

Finally, state governments have become increasingly important actors in the capital marketplace by creating their own public or publicly-chartered venture capital and business lending programs, by adjusting their own investment policies, and by regulating private capital institutions more strategically to achieve public development objectives. This increasingly important source of financial resource capacity is discussed in the Policy Index.

While the subject is complex (and often contentious), this subindex provides a general picture of the financial capacity of states, using five measures: bank deposits, loan to equity ratios, commercial and industrial loans, venture capital, and dividends, interest and rent income.

Commercial Bank Deposits

Since deposits form the base from which banks invest, this measure provides a basic indicator of capital availability within a state. The higher the level of deposits, adjusted for population size, the more funds there are available for lending.

Loans to Equity

Equity — the original investment of the bank's founders plus any accumulated undivided earnings — is the base from which banks make investments. The more aggressive the bank, the more leveraged this base is in loans to consumers and businesses. This measure is designed to begin to get at how aggressive commercial banks are in using their resources to further business investments and expansions in the state.

Commercial and Industrial Loans

To measure how well financial institutions are serving businesses, we first take the total of their commercial and industrial loans, and then adjust for differences in the size of the commercial and industrial sector among states by dividing by the number of non-agricultural employees in the state. This adjustment provides an indication of demand. A weakness with this measure is that the loans made by a bank in a state can be to businesses located outside that state.

Venture Capital Investments

Venture capital firms provide early-stage capital for firms with high growth potential and, as a consequence, can be instrumental in the formation and expansion of growth industries. Active venture capital participation in a state is an indicator of a rapidly developing economy and multiple investment opportunities. It is useful to note here that despite the fact that the venture capital industry has grown sharply in recent years, it is still quite small and focused in only a handful of states. Consequently, unless a state is among the top half dozen or so, venture capital rankings have little practical effect.

Dividend, Interest and Rent Income

This measure is an indirect indicator of the wealth of the state's residents and their ability to make investments. It also indirectly indicates the potential availability of seed capital for new enterprises, since such investments typically come from individual investors.

Subindex Four: Physical Infrastructure and Amenity Resources

Almost without exception, surveys of businesspeople and public officials concerned about economic development rate two issues at the top of any list of factors important to development: the condition of the basic infrastructure of the community or state, and the quality of the amenities in the area.[8]

Physical infrastructure and amenities — roads, bridges, water systems, sewage collection and treatment systems, housing stock, parks and recreation facilities, and cultural institutions — form the basic foundation upon which businesses build, and are crucial to attracting and keeping the employees businesses need to grow.

Broken water mains, overtaxed

treatment plants, collapsed bridges and a pervasive failure of public agencies to invest in the maintenance of these facilities led to widespread public concern about America's "infrastructure crisis,"[9] precipitated a number of studies that proved conclusively how such facilities contributed to state economies, and led many states to rededicate themselves to improving these facilities as a central part of their economic development strategies.[10] In a similar vein, states and communities have begun to restore and enhance the amenities that define the quality of life in an area and have made substantial investments to turn amenity liabilities — such as polluted rivers and harbors and decaying waterfronts — into showcase amenity assets.

For two issues so important to the economic capacity of state, the absence of clear, nationally consistent state-by-state indicators is especially frustrating. To begin to explore the infrastructure and amenity resource capacity of states, we examine highway condition, unmet sewage treatment plant needs, bridge ratings, urban mass transit availability, energy cost, housing cost, the availability of doctors, distribution of foundation grant funds, and tourism spending. These measures are like pieces of a puzzle: individually they reveal only a little, but taken together they begin to illuminate the overall capacity of a state's infrastructure and amenities.

Highway Deficiency

In an economy in which most goods are transported by truck, highway conditions are not just a measure of state infrastructure capacity, but a fundamental measure of competitiveness as well. This year we measure the percent of rural and urban interstate and major arterial highway mileage with poor serviceability ratings, according to the Federal Highway Administration.

Bridge Deficiency

For the same reasons, this year we also examine bridge ratings — specifically, the percent of deficient bridges on public roads in each state, based upon a biannual report to Congress by the Federal Highway Administration.

Urban Mass Transit Availability

For two reasons — increasing the operating efficiency of metropolitan areas, and increasing the accessibility of the workforce to businesses — the availability of mass transit is an important capacity asset. We calculate availability by multiplying the total number of seats by the total mileage of service for all forms of public transportation for each metropolitan area, sum the products by state, and then divide by the total urban population for each state. The result is a measure of state effort — and capacity. This measure would appear to shortchange states with small urban populations and lots of wide open spaces, and, to an extent, it does. However, many such states fare quite well (Alaska, Nevada, Arizona, South Dakota and Utah, for example) because, despite their thin population density, they serve the populations in their larger cities well.

Energy Cost

Electrical energy continues to increase in importance as economies become more technology-intensive. Moreover, energy costs vary substantially from state to state and affect both business costs and living costs. This measure calculates the average price per kilowatt hour of energy sold by electrical utilities to their commercial, industrial and residential customers, using data provided by the Edison Electric Institute.

Sewage Treatment Needs

Without adequate sewage treatment plant capacity, existing businesses are constrained and new businesses must seek other sites. Using Environmental Protection Agency data, we measure the dollar amount of unmet sewage treatment plant needs on a per capita basis.

Urban Housing Cost

Many areas of the nation face shortages of available housing that threaten to constrain development prospects, particularly in urban areas. However, no adequate state-by-state assessment of housing capacity is available at present. We explore this issue instead by considering the cost of housing as a percent of personal income, based upon a weighted average of fair market rent schedules for a standard unit of housing in metropolitan areas, as calculated by the U.S. Department of Housing and Urban Development. We assume a direct relationship between availability and cost — that is, the scarcer the housing, the higher the cost of what is available.

Doctor Availability

The number of doctors available to a state's residents is a useful though incomplete measure of the ease with which people can obtain basic medical care and, by extension, an indirect measure of community well-being.

Foundation Grant Funds Distribution

Measuring the distribution of arts and cultural foundation grant funds provides us with an indirect way to capture charitable, volunteer and non-profit activities that create an environment of caring, enriching both states and the people who live in them — from the youngest to the oldest. This measure helps us understand a part of what people mean when they say: "This is a good place to live."

Tourism Spending

Another way to understand whether "this is a good place to live" is to observe people's behavior — specifically how much people pay to participate in recreation and tourism activities in a state. While this is an indirect measure of amenities, it has the advantage of being able to reveal how people *value* the amenities in a state — from amusement parks to campsites.

Findings

A comparison of the rankings in the Capacity Index with the state standings in both the Performance and Business Vitality Indexes illustrates the interdependence between public capacity investments and private business growth, and the long-term payoff in employment and earnings that accrues to states that have a history of capacity investments. Six of the top ten states in Business Vitality, and seven of the top ten in Performance, are also in or near the top ten in the Capacity Index.

The other states at the top of the Capacity Index are states that have, in effect, excess capacity — that is, the economies in these states either have not yet fully recovered from the restructuring of the last decade (as is the case in Pennsylvania, New York and Illinois, for example), or they are struggling through a quite recent cyclical downturn (as is the case for Texas and Colorado, for example). Conversely, the only states in the top ten of the Performance Index that are not also in the top ten of the Capacity Index are Rhode Island, New Hampshire and Maine — states whose recent bursts of growth owe more to their proximity to (or to spinoffs from) the Boston metropolitan area than to their own inherent development capacity.

At the other extreme, seven of the ten states ranked at the bottom of the Capacity Index also are in the bottom ten in the Performance Index. Only three of the states at the bottom of the Capacity Index are also at the bottom of the Business Vitality Index (though several more are close); the rest tend to be southern states whose strong population growth in recent years has overwhelmed their development capacity. This may be one reason the economic growth rates of several of these southern states have slowed recently.

Finally, a poignant story is told by the remaining states in the bottom third of the Capacity Index. Many are states rich in energy resources — oil, gas, coal and uranium — and until recently they benefitted handsomely from the jobs, earnings, and support businesses associated with energy resource extraction. In fact, they did so well that they never had the need to make significant investments in education, or technology (other than energy-related), capital or infrastructure. So long as energy production boomed, they did too. But when the bottom dropped out a few years ago, these states had little to fall back upon, and many remain crippled today.

In the end, given the variety of the measures in this Index, the clearest picture is at the index-wide level and the message is clear: investments in capacity are directly linked to eventual economic performance increases. Postponing such investments simply mortgages the future.

Human Resources Subindex Findings

This subindex tells a fascinating story of regional variations in educational attainment in America and, given the importance of a skilled workforce, potential regional disparities in economic competitiveness.

Fully three-quarters of the states with *A*'s or *B*'s in this subindex are thinly-populated, predominantly rural, and often fairly remote, a pattern almost identical to last year's results. One wry commentator from one of these states last year said: "Well, of course! Out here, there's nothing to drop out (of school) *to*!" But there is more to it than that. These states — mostly across the northern tier and in America's heartland — historically have placed a high value on education, especially high school completion. Moreover, public schools in these states tend to be social and community focal points. As a consequence, these states tend to have very high overall adult literacy levels. A state like Montana, for example, offers employers a workforce they can be confident will be smart, motivated, and work-ready.

The problem these states face, in terms of long-term competitiveness, is that high school is where many of their young people stop. Those that go on to higher education leave the state to do so and often do not return. Consequently, on the college attainment measure, many of these same states post mediocre scores, ranking well behind their more cosmopolitan competitors.

At the bottom of this subindex are those states that score uniformly poorly in all three measures of educational attainment. Most are southern or Appalachian states that struggle with a legacy of illiteracy. To their credit, many of these states are working hard on major education reform programs, often with limited financial resources. Just above them on this subindex are states with urban underclass problems — high dropout rates, drug-related crime among young people, and teen pregnancy problems — and, in many cases, large immigrant populations not well integrated into either the school system or society. Included in this group are New York, Pennsylvania, Michigan, Florida, Illinois and California, among others.

Technological Resources Subindex Findings

As it did last year, the Technological Resources subindex illustrates the close relationship between how well-developed a state's technology resources are and how well it will perform. All the states that receive *A*'s in this subindex, and many that receive *B*'s, have either world-class research universities, technology-producing corporations, or major national labs — or all three. Many of the leaders in the Performance Index — including Massachusetts, Connecticut, Delaware, Maryland and Rhode Island, for example — are also leaders in this subindex. The competitiveness of their economies is driven, to a significant extent, by their ability to convert high numbers of technology specialists and levels of research dollars into businesses and jobs.

On the other hand, the Technological Resources subindex also illustrates the limitations of the linkage with the Performance Index. For example, two other leading technology research states — New Mexico and Utah — have average or below-average economic Performance ratings. We suspect the reason is the nature of the research conducted in these states. Because it is defense-related and typically "top secret," this research is hard to get "over the fence" that is, commercialized in such a way that it spawns new local companies and new jobs. Unable to generate spinoff economic growth from these labs, these states are exceptionally vulnerable to changes in federal funding priorities for the defense, energy or space-related research conducted there.

At the other end of the spectrum are what might best be described as "low-tech states." They have few scientists and engineers in their population, are producing relatively few new ones in their universities, and have limited federal and university R&D funding. They specialize in raw materials and commodity production and tend to be southern, rural, or both.

Financial Resources Subindex Findings

This subindex paints a revealing portrait of the location and movement of capital resources in our economy. The states that have the strongest financial capacity tend to be one of two types — either traditional national and international banking centers (New York, Pennsylvania and Illinois, for example) or states experiencing rapid growth, often technology-related (such as Massachusetts, California and Minnesota).

The extent of the relationship between capital and growth is underscored if we compare the rankings in this subindex with those in the Entrepreneurial Energy subindex of the Business Vitality Index: there is significant overlap among the states earning *A*'s and *B*'s in both. In short, capital is moving to locations that appear to have high potential returns at relatively low levels of risk.

In the *C* grade range are several states that may have weak economies statewide but strong urban economies with aggressive regional banking and investment centers. States in this category include, among others, Florida (Miami), Virginia (Richmond), Oregon (Portland/"Sunset Corridor"), and North Carolina (Raleigh/Durham).

At the bottom of this subindex are a number of states in the South, the Plains and the Mountain West — predominantly rural states chronically short of capital. It is worth noting, however, that the relative lack of capital in these states may well be related to the growing strength of the regional capital centers that serve them — Georgia in the South, for example, Texas and Colorado in the Southern Plains and Southwest, and Minnesota in the Northern Plains. When businesses in these states need capital and local institutions cannot provide it, they may turn to the regional centers. What might be lost in having to approach these regional centers is a responsiveness and sensitivity to local conditions.

Infrastructure and Amenity Resources Subindex Findings

Overall, the clearest pattern in this varied subindex is at the bottom end: states that do poorly on the Performance Index, perhaps not surprisingly, do poorly on the Infrastructure and Amenity subindex as well. Moreover, they tend to be southern or energy industry-dependent states.

Just above this bottom tier are most — but not all — of the nation's older industrial states. Were this subindex limited to infrastructure, it is likely many of these states would be closer to the bottom; they still have not overcome a legacy of postponed maintenance. They would be joined by other, poorer states that also have long postponed needed improvements, including Kentucky and West Virginia, among others.

Within the individual measures in this subindex are several revealing stories. The *Doctor Availability* measure underscores what many residents of rural states already know: there is a clear shortage of doctors in our most thinly populated states. The leaders in this measure are principally states that host several large research hospitals and medical institutions.

In the *Sewage Treatment Needs* measure, the states at or near the bottom of the list tend to be older industrial economies that simply have not changed their treatment needs situation enough to post improvement. At the other extreme of this list are states that either have excess capacity or economies that make relatively small demands on treatment capacity.

The *Energy Cost* measure appears, more than anything else, to be a portrait of generation technologies: the states with the lowest energy costs tend to obtain their electrical energy from hydroelectric plants, many created with heavy federal subsidies. At the other extreme are states that have mortgaged their future on nuclear generating plants, many of which are not even on-line.

Capacity Data

	HUMAN RESOURCES						TECHNOLOGICAL RESOURCES									
	High School Graduation		Adult Illiteracy		College Attainment		Sci. & Engin. per 1000 wkrs.		Sci./Eng.Stud. per 1000 pop.		Patents Issued per 100M pop.		Univ. R&D per capita		Fed. R&D per capita	
	%	Rank	%	Rank	%	Rank	#	Rank	#	Rank	#	Rank	$	Rank	$	Rank
Alabama	69.5	39	13	31	12.6	45	38.5	31	1.17	35	3.1	42	37.45	31	329.80	10
Alaska	73.6	32	7	2	22.4	2	47.7	15	0.74	47	1.3	50	57.51	11	92.66	25
Arizona	70.0	38	12	25	16.8	19	37.0	34	2.13	5	9.2	11	53.53	15	122.46	22
Arkansas	78.6	19	15	40	9.7	50	32.7	39	0.50	50	1.9	46	14.88	48	21.92	48
California	68.5	41	14	33	19.8	6	56.2	6	1.55	17	10.5	7	56.10	13	494.19	4
Colorado	76.0	27	8	4	23.0	1	64.8	2	2.34	3	9.0	13	56.34	12	460.04	5
Connecticut	78.2	20	12	25	21.2	3	63.2	4	1.42	23	19.8	2	71.87	5	209.33	13
Delaware	71.0	36	11	17	16.3	21	54.5	7	2.02	7	25.6	1	49.19	21	50.20	37
Florida	63.5	49	15	40	14.7	34	29.1	48	1.13	36	5.4	26	20.99	45	191.12	14
Georgia	65.0	48	14	33	15.3	27	31.8	43	1.11	37	3.5	38	52.10	18	56.60	35
Hawaii	84.5	6	15	40	20.3	4	42.8	26	1.81	10	3.0	43	52.95	16	59.44	33
Idaho	79.6	15	8	4	16.1	22	44.8	22	1.18	34	3.7	37	24.83	43	233.19	12
Illinois	77.8	22	14	33	14.5	35	42.0	28	1.64	15	10.1	8	43.02	28	71.40	29
Indiana	75.9	29	11	17	12.4	46	44.6	23	1.47	21	7.7	18	34.01	35	61.37	31
Iowa	86.6	5	10	14	14.1	38	40.0	29	1.83	9	5.4	25	55.57	14	57.21	34
Kansas	84.1	8	9	9	15.7	25	33.6	38	1.78	12	4.0	33	37.94	30	37.99	42
Kentucky	67.9	42	15	40	11.0	48	30.8	44	0.80	46	3.2	41	20.93	46	16.68	50
Louisiana	61.6	50	16	47	13.4	42	37.8	32	0.97	42	4.2	31	33.30	36	24.15	47
Maine	78.8	18	11	17	14.0	39	39.2	30	0.52	49	3.3	40	14.28	49	150.48	18
Maryland	76.5	25	12	25	19.8	6	58.5	5	1.43	22	6.9	21	156.56	1	889.90	2
Massachusetts	76.0	27	11	17	20.0	5	64.5	3	3.63	1	13.0	4	122.81	2	667.81	3
Michigan	71.4	35	11	17	15.2	29	52.5	10	1.56	16	11.5	6	43.13	27	50.37	36
Minnesota	88.7	1	9	9	16.7	20	47.2	16	1.32	30	12.1	5	52.37	17	119.28	24
Mississippi	65.6	47	16	47	13.0	44	30.0	46	0.90	43	1.6	48	21.95	44	70.28	30
Missouri	76.1	26	12	25	14.0	39	46.7	17	1.35	29	4.7	29	40.57	29	120.44	23
Montana	84.5	6	8	4	17.3	15	29.3	47	1.10	38	2.6	44	36.48	32	37.18	43
Nebraska	86.7	4	9	9	16.1	22	37.8	32	1.52	19	4.0	34	45.00	26	30.69	46
Nevada	81.3	12	9	9	15.1	31	52.5	10	0.64	48	3.8	36	27.87	42	458.80	6
New Hampshire	74.6	31	9	9	18.4	13	49.7	13	0.84	45	9.2	12	45.21	25	78.86	27
New Jersey	79.7	14	14	33	18.6	12	53.3	9	1.36	26	16.5	3	28.10	40	145.30	19
New Mexico	73.2	33	14	33	17.3	15	50.0	12	1.88	8	5.3	27	85.14	3	1331.99	1
New York	66.7	45	16	47	18.7	11	45.8	21	2.32	4	8.8	14	63.40	7	165.02	16
North Carolina	69.1	40	14	33	13.4	42	30.3	45	1.26	31	5.3	28	48.93	22	91.02	26
North Dakota	88.4	2	12	25	15.2	29	24.5	50	1.36	26	1.5	49	58.01	9	43.68	40
Ohio	79.2	17	11	17	14.8	33	48.7	14	1.79	11	9.6	10	30.49	37	172.82	15
Oklahoma	75.8	30	11	17	15.7	25	46.1	20	1.36	26	7.9	17	30.29	38	31.11	45
Oregon	70.8	37	8	4	17.2	17	42.3	27	1.37	25	8.6	15	48.55	23	49.14	38
Pennsylvania	81.1	13	12	25	13.8	41	46.7	17	1.53	18	10.0	9	50.67	20	140.92	20
Rhode Island	72.0	34	15	40	15.3	27	36.2	36	2.10	6	5.5	24	66.45	6	370.58	9
South Carolina	67.8	43	15	40	14.2	36	32.1	42	1.08	40	4.4	30	27.97	41	36.10	44
South Dakota	86.9	3	11	17	14.2	36	24.6	49	1.21	32	2.0	45	16.24	47	18.09	49
Tennessee	67.2	44	15	40	11.9	47	36.6	35	1.05	41	4.1	32	29.69	39	150.76	17
Texas	65.9	46	16	47	16.0	24	46.2	19	1.41	24	7.2	20	48.31	24	134.68	21
Utah	82.5	11	6	1	15.1	31	53.4	8	2.59	2	6.2	23	71.95	4	254.29	11
Vermont	82.7	10	10	14	19.5	8	32.5	41	1.10	38	7.5	19	57.57	10	72.20	28
Virginia	76.6	24	13	31	19.2	9	43.8	24	1.76	13	3.8	35	35.00	34	388.34	8
Washington	78.1	21	8	4	18.8	10	71.6	1	1.21	32	6.9	22	51.99	19	413.98	7
West Virginia	77.1	23	14	33	10.5	49	32.7	39	0.85	44	3.5	39	14.08	50	61.07	32
Wisconsin	83.7	9	10	14	17.9	14	43.0	25	1.71	14	8.5	16	63.07	8	42.54	41
Wyoming	79.6	15	7	2	17.2	17	35.2	37	1.51	20	1.8	47	35.34	33	47.86	39

Please refer to *Capacity Data Sources* and the *Capacity Index* text for further detail on individual measures.

FINANCIAL RESOURCES

	Bank Deposits per 1000 pop.		Loans to Equity		Comm./Ind. Loans per 1000 wkrs.		Venture Capital		Div./Rent/Int. Inc. per capita		Highway Deficiency		Bridge Deficiency	
	$	Rank	Ratio	Rank	$	Rank	Score	Rank	$	Rank	%	Rank	%	Rank
Alabama	5,945	43	7.2	39	1,217	37	0.33	27	1,552	48	19.8	43	48	34
Alaska	7,551	23	5.4	48	1,881	11	0.00	45	1,888	40	24.7	46	11	2
Arizona	6,920	34	11.3	4	1,507	22	0.42	23	2,590	23	9.4	26	7	1
Arkansas	6,593	37	6.6	43	990	46	0.00	45	1,815	43	14.5	38	48	34
California	7,204	27	11.6	3	1,803	12	3.40	2	2,949	6	9.3	25	26	14
Colorado	6,168	40	7.5	36	1,217	36	1.68	6	2,657	15	5.5	12	36	26
Connecticut	8,524	16	11.0	5	2,345	8	2.75	3	3,785	2	6.7	17	63	48
Delaware	30,684	1	8.5	26	7,972	1	0.42	23	2,784	11	10.7	30	19	8
Florida	7,555	22	9.7	15	1,149	39	0.31	28	3,806	1	9.9	27	23	12
Georgia	6,499	38	8.7	23	1,552	20	0.51	19	1,939	39	11.6	32	44	29
Hawaii	9,372	6	8.2	28	1,600	17	0.16	35	2,314	31	12.9	34	27	15
Idaho	5,880	44	8.9	22	1,299	31	0.51	19	1,974	37	10.6	29	29	17
Illinois	9,773	5	8.5	27	2,979	5	0.66	15	2,885	7	4.4	10	31	21
Indiana	7,474	24	7.9	31	1,334	27	0.50	21	2,228	33	15.9	40	51	38
Iowa	9,166	8	5.2	50	988	47	0.30	29	2,835	9	2.9	4	49	37
Kansas	8,732	14	6.6	42	1,445	24	0.09	40	2,757	12	8.0	23	52	39
Kentucky	7,390	25	7.3	37	1,503	23	0.08	41	1,830	42	13.8	37	62	47
Louisiana	6,831	35	7.7	34	1,283	33	0.24	32	1,810	44	13.3	35	46	30
Maine	4,854	49	10.7	11	1,087	42	0.43	22	2,248	32	5.8	14	30	20
Maryland	7,200	28	9.4	19	1,510	21	0.56	18	2,833	10	3.6	7	36	26
Massachusetts	10,903	4	10.9	7	3,462	3	4.72	1	3,210	4	7.9	22	35	23
Michigan	6,966	31	9.0	21	1,605	16	0.13	37	2,370	29	6.3	16	29	17
Minnesota	9,359	7	8.0	30	2,381	7	0.68	14	2,653	16	1.0	1	29	17
Mississippi	6,030	42	6.9	40	819	49	0.03	43	1,331	50	33.6	49	54	41
Missouri	8,731	15	7.8	33	1,432	25	0.10	38	2,716	13	17.7	42	63	48
Montana	7,674	20	6.5	44	1,329	28	0.00	45	2,446	27	8.8	24	60	45
Nebraska	9,116	9	5.9	45	1,060	44	0.05	42	2,598	21	4.0	8	59	44
Nevada	6,093	41	8.6	25	1,277	34	0.80	11	2,670	14	7.4	20	16	4
New Hampshire	7,195	29	11.9	2	1,294	32	0.69	13	2,882	8	17.4	41	46	30
New Jersey	8,048	18	11.0	6	1,968	10	2.04	4	3,555	3	14.6	39	35	23
New Mexico	5,583	46	7.7	35	1,064	43	0.15	36	1,970	38	6.2	15	18	6
New York	13,906	2	7.3	37	4,686	2	0.42	23	3,147	5	3.0	6	67	50
North Carolina	6,403	39	9.8	14	1,689	14	0.66	15	1,831	41	7.7	21	57	43
North Dakota	9,092	10	5.7	47	1,170	38	0.91	9	2,647	17	2.5	2	53	40
Ohio	6,744	36	9.4	18	1,580	19	0.25	31	2,334	30	10.2	28	21	9
Oklahoma	7,228	26	6.6	41	1,132	41	0.24	32	2,132	36	25.2	47	56	42
Oregon	5,412	47	9.1	20	1,614	15	1.97	5	2,533	24	13.7	36	18	6
Pennsylvania	8,824	12	10.0	13	2,530	6	0.41	26	2,605	20	21.0	44	36	26
Rhode Island	8,914	11	12.0	1	3,023	4	0.00	45	2,643	18	25.7	48	22	11
South Carolina	3,988	50	8.6	24	859	48	0.10	38	1,579	47	5.5	13	21	9
South Dakota	11,776	3	9.6	16	1,223	35	0.00	45	2,375	28	7.2	18	48	34
Tennessee	6,941	32	8.1	29	1,310	30	1.02	7	1,751	45	36.5	50	46	30
Texas	8,754	13	10.2	12	2,089	9	0.89	10	2,221	35	7.4	19	35	23
Utah	5,159	48	9.5	17	1,048	45	0.29	30	1,517	49	2.7	3	15	3
Vermont	8,064	17	10.9	8	1,751	13	0.58	17	2,493	26	5.4	11	17	5
Virginia	7,590	21	10.7	10	1,588	18	0.70	12	2,598	22	11.0	31	33	22
Washington	5,643	45	10.9	9	1,317	29	0.99	8	2,611	19	4.3	9	27	15
West Virginia	6,932	33	5.8	46	771	50	0.01	44	1,682	46	21.7	45	60	45
Wisconsin	7,107	30	7.8	32	1,366	26	0.22	34	2,527	25	12.6	33	46	30
Wyoming	7,740	19	5.3	49	1,138	40	0.00	45	2,222	34	3.0	5	25	13

PHYSICAL INFRASTRUCTURE AND AMENITY RESOURCES

Mass Transit per capita		Energy Costs cents per KwH		Sewage Needs per capita		Urban Housing Costs		Doctors per 1000 pop.		Found. Grants per 1000 pop.		Tour. Spend. per capita		
Score	Rank	¢	Rank	$	Rank	%	Rank	#	Rank	$	Rank	$	Rank	
1.27	41	5.62	14	120	12	37.0	14	1.62	42	42	49	441	50	Alabama
1.96	29	8.85	50	324	39	33.6	3	1.69	41	780	20	1,645	4	Alaska
1.45	37	7.29	37	171	23	44.4	41	2.27	14	437	30	1,375	11	Arizona
0.93	44	6.46	27	112	11	37.8	18	1.61	43	80	48	758	41	Arkansas
3.19	10	7.75	40	195	25	47.3	45	2.68	6	1,633	8	1,174	13	California
2.76	15	5.85	19	24	1	37.5	17	2.27	14	864	19	1,524	10	Colorado
2.29	22	8.28	46	342	42	38.7	25	3.12	4	875	18	845	30	Connecticut
1.64	32	6.51	30	82	6	39.7	30	2.07	20	1,889	6	1,094	16	Delaware
1.45	37	6.96	36	338	40	38.5	23	2.40	11	128	44	1,635	6	Florida
3.62	7	5.94	20	107	10	38.1	20	1.81	34	554	26	821	32	Georgia
4.64	2	8.26	45	291	37	48.3	47	2.61	7	1,526	10	2,682	2	Hawaii
1.38	40	3.69	2	170	21	42.9	37	1.40	49	258	38	983	21	Idaho
3.68	6	7.77	41	242	31	41.2	34	2.26	16	2,045	4	798	38	Illinois
1.59	34	6.06	24	283	35	35.5	9	1.60	44	2,922	3	534	47	Indiana
2.21	23	6.46	27	227	29	38.4	22	1.59	46	295	34	675	44	Iowa
1.62	33	6.85	35	159	19	35.5	8	1.89	31	234	39	774	39	Kansas
2.40	20	5.19	7	364	43	33.0	1	1.71	38	302	33	597	46	Kentucky
2.14	25	5.80	18	206	27	44.1	38	1.95	26	165	42	774	40	Louisiana
2.68	17	6.52	31	251	33	45.6	43	2.01	23	340	31	1,538	8	Maine
3.23	9	6.01	23	151	18	37.2	15	3.66	1	271	36	1,017	18	Maryland
4.62	3	8.00	43	671	48	48.5	48	3.46	2	1,247	12	988	20	Massachusetts
2.07	26	6.62	33	339	41	36.9	11	1.94	28	1,020	14	812	35	Michigan
3.71	5	5.36	9	240	30	37.5	16	2.29	13	3,607	1	1,180	12	Minnesota
0.76	46	6.10	25	165	20	44.3	40	1.40	49	85	47	486	49	Mississippi
2.90	14	6.53	32	192	24	33.2	2	2.02	22	738	22	947	22	Missouri
0.72	47	3.83	3	53	3	42.1	36	1.71	38	906	16	887	29	Montana
2.76	15	5.29	8	81	5	34.6	6	1.79	35	1,676	7	755	42	Nebraska
0.42	49	6.81	34	140	14	48.7	49	1.74	37	117	46	6,765	1	Nevada
1.40	39	8.32	47	813	50	40.9	33	2.10	19	642	23	1,610	7	New Hampshire
2.48	18	8.58	48	464	45	40.7	32	2.50	9	1,010	15	1,638	5	New Jersey
0.88	45	7.53	39	94	8	44.4	42	1.95	26	292	35	1,163	14	New Mexico
13.33	1	8.73	49	688	49	38.5	24	3.30	3	3,464	2	902	26	New York
1.57	35	6.21	26	170	21	34.1	5	1.92	30	779	21	927	23	North Carolina
1.07	42	5.99	21	25	2	39.2	28	1.79	35	203	40	902	26	North Dakota
3.14	11	5.77	16	304	38	33.8	4	2.06	21	893	17	622	45	Ohio
0.97	43	5.38	10	103	9	40.1	31	1.60	44	566	25	814	33	Oklahoma
3.55	8	4.39	4	288	36	41.6	35	2.22	18	1,598	9	909	24	Oregon
3.00	13	7.30	38	137	13	37.9	19	2.43	10	1,932	5	813	34	Pennsylvania
2.17	24	8.16	44	398	44	39.2	29	2.61	7	461	28	488	48	Rhode Island
0.68	48	5.58	12	147	16	38.8	26	1.71	38	320	32	1,092	17	South Carolina
2.41	19	6.00	22	85	7	35.7	10	1.53	47	179	41	811	36	South Dakota
1.98	28	5.68	15	199	26	38.2	21	1.98	24	261	37	799	37	Tennessee
1.70	31	5.48	11	146	15	37.0	13	1.85	32	1,333	11	909	25	Texas
2.33	21	6.48	29	216	28	48.1	46	1.93	29	149	43	1,113	15	Utah
1.57	35	7.81	42	275	34	46.5	44	2.75	5	568	24	2,344	3	Vermont
2.02	27	5.77	16	148	17	38.9	27	2.24	17	124	45	998	19	Virginia
4.13	4	3.30	1	470	46	36.9	12	2.36	12	441	29	893	28	Washington
1.90	30	5.02	6	479	47	44.2	39	1.84	33	26	50	727	43	West Virginia
3.08	12	5.60	13	249	32	34.9	7	1.96	25	1,231	13	841	31	Wisconsin
0.00	50	4.41	5	65	4	49.5	50	1.52	48	531	27	1,536	9	Wyoming

Capacity Data Sources

Subindex One: Human Resources

High School Graduation

High school graduates in 1986-87 as a percent of 9th grade enrollment in Fall 1983. Adjusted for migration and unclassified students.
Source: U.S. Department of Education, National Center for Education Statistics, unpublished tables, 1988.

Adult Illiteracy

Percent of adults age 18-64 considered "illiterate," 1985.
Source: U.S. Department of Education estimates based on the "English Language Proficiency Survey," 1985, reported in Jack Brizius and Susan Foster, "Adult Literacy," *State Policy Reports*, November 9, 1987.

College Education Attainment

Percent of population over 25 with at least four years of college, 1980.
Source: U.S. Department of Education, Center for Education Statistics, Office of Educational Research and Improvement, *Digest of Education Statistics, 1985-1987* (Washington, DC: Government Printing Office, 1987).

Subindex Two: Technological Resources

Scientists and Engineers in the Workforce

Scientists and engineers per 1,000 workers, 1986.
Source: National Science Foundation, Division of Science Resource Studies, "U.S. Scientists and Engineers," 1987.

Science and Engineering Doctoral Students

Students in science and engineering doctoral programs, per 1,000 population, 1986.
Source: National Science Foundation, Division of Science Resource Studies, "Early Release of Summary Statistics on Academic Science/Engineering Resources," October 1988.

Patents Issued

Patents issued per 100,000 residents, 1987.
Source: U.S. Patent and Trademark Office, Office of Documentation, "Technology Assessment and Forecast Report: Patent Counts by Country/State and Year, 1/1963 - 6/1988," October 1988.

University Research and Development

Research and development expenditures at doctorate granting institutions, 1986. Dollars per capita.
Source: National Science Foundation, Division of Science Resource Studies, "Early Release of Summary Statistics on Academic Science/Engineering Resources," October 1988.

Federal Research and Development

Federal obligations for research and development, FY 1987. Dollars per capita.
Source: National Science Foundation, Division of Science Resource Studies, "Federal Funds for Research and Development, Fixed Years 1987, 1988 and 1989," 1988.

Subindex Three: Financial Resources

Commercial Bank Deposits

Commercial bank deposits, per 1,000 residents, 1987. Dollars.
Note: Figures refer only to domestic bank activities in the U.S.
Source: Federal Deposit Insurance Corporation, Division of Research, unreleased data, 1988. Calculations by The Corporation for Enterprise Development.

Loans to Equity

Commercial banks' total loans and leases as a percent of total equity, 1987. Ratio.
Note: Figures refer only to domestic bank activities in the U.S.
Source: Federal Deposit Insurance Corporation, Division of Research, unreleased data, 1988. Calculations by The Corporation for Enterprise Development.

Commercial and Industrial Loans

Commercial and industrial loans per 1,000 production workers on non-agricultural payrolls, 1987. Dollars.
Source: Federal Deposit Insurance Corporation, Division of Research, unreleased data, 1988. *Employment and Earnings*, May 1987. Calculations by The Corporation for Enterprise Development.

Venture Capital Investments

State's share of total national venture capital fund investments relative to the state's share of national population, 1987. Ratio.
Source: Venture Economics, Inc., "1987 State by State Venture Capital Investments," Wellesley Hills, Massachusetts, 1988.

Dividend, Interest and Rent Income

Dividend, interest and rent income per capita, 1987. Dollars.
Source: *Survey of Current Business*, August 1988. Calculations by The Corporation for Enterprise Development.

Subindex Four: Physical Infrastructure and Amenity Resources

Highway Deficiency

Percent of total roadway mileage rated below quality standard for designated use, 1987.
Source: Federal Highway Administration, *Highway Performance Monitoring System Data Set*, September 1988.

Bridge Deficiency

Percent of bridges rated as deficient, 1986.
Source: Federal Highway Administration, *Eighth Annual Report to Congress: Highway Bridge Replacement and Rehabilitation Program*, 1987.

Urban Mass Transit Availability

Weighted measure of urban public mass transit systems' carrying capacity and mileage, 1984. Seat miles per capita.

Source: Richard Boyer and David Sevagean, *Places Rated Almanac*, (New York: Simon & Schuster, Inc., 1988).

Energy Cost

Average cost per kilowatt hour, 1987. Cents.

Source: Edison Electric Institute, "Advance Release of Data for 1987 Statistical Yearbook of the Electric Utility Industry", November 1988.

Sewage Treatment Needs

Estimated backlog of sewage treatment plant unmet needs, per capita, 1986. Dollars.

Source: Environmental Protection Agency, *Assessment of Needed Publicly Owned Wastewater Treatment Facilities in the United States: 1986 Needs Survey Report to Congress*, September 1987.

Housing Cost

Weighted annual average fair market rent schedules, standard two-bedroom unit of housing, metropolitan areas (1988) as a percent of per capita income (1986).

Source: Department of Housing and Urban Development, "Fair Market Schedules for Use in the Existing Housing Certificate Program," *Federal Register*, September 21, 1988; and *Survey of Current Business*, April 1988. Calculations by The Corporation for Enterprise Development.

Doctor Availability

Active physicians, federal and non-federal, per 1,000 residents, 1986.

Source: American Medical Association, *Physicians Characteristics and Distribution* (Chicago: American Medical Association, 1987).

Foundation Grant Funds Distribution

State distribution of grants received, per 1,000 residents, 1986. Dollars.

Source: The Foundation Center, *Grants for Arts and Cultural Programs 1987* (Washington, DC: The Foundation Center, 1988).

Tourism Spending

U.S. domestic travel-generated entertainment and recreation receipts per capita, 1986. Dollars.

Source: U.S. Travel Data Center, *Impact of Travel on State Economies, 1986* (Washington, DC: U.S. Travel Data Center, June 1988).

All per capita population calculations were made by The Corporation for Enterprise Development. Source: 1987 population, Bureau of the Census, Press Release December 30, 1987.

Endnotes

1. See Edward Malecki, "Technology and Regional Development: A Survey," *International Regional Science Review* 8 (1983); and Edward F. Denison, *Trends in American Economic Growth, 1929-1982* (Washington, DC: The Brookings Institution, 1985).

2. William Johnston, *Workforce 1000: Work and Workers for the 21st Century* (Indianapolis: Hudson Institute, June 1987).

3. U.S. Congress, Joint Economic Committee, *Location of High Tech Firms and Regional Economic Development* (Washington, DC: Government Printing Office, June 1982).

4. Edward Malecki, "Public and Private Sector Interrelationships, Technology Change, and Regional Development," Papers of the Regional Science Association, 47, 1981.

5. U.S. Congress, Office of Technology Assessment, *Technology Innovation and Regional Economic Development* (Washington, DC: Government Printing Office, July 1984); and U.S. Congress, Congressional Budget Office, "The Productivity Problem: Alternatives for Action," A CBO Study, January 1981.

6. Private research spending, though a critical measure, is often proprietary and, therefore, unavailable.

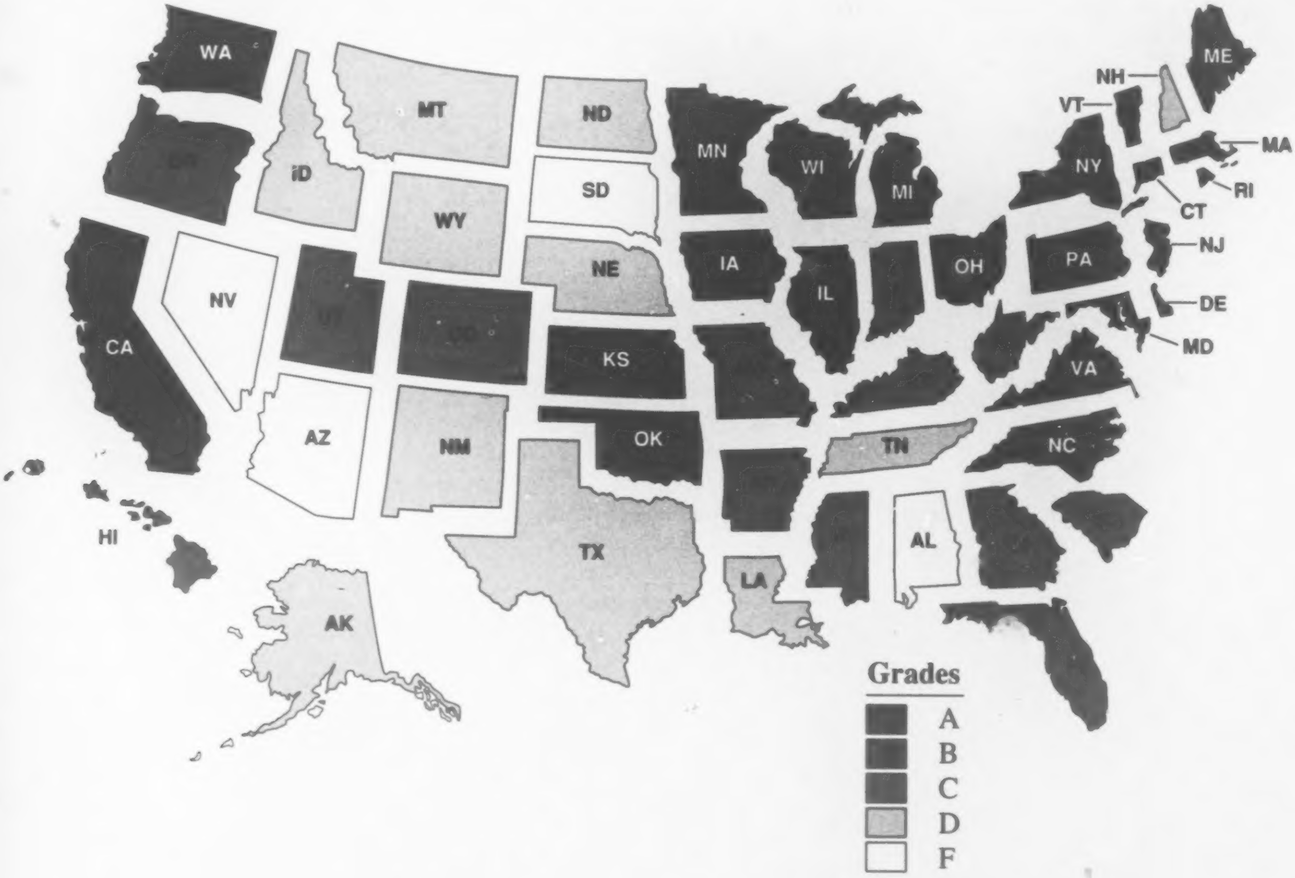
7. Mt. Auburn Associates, *The Design and Management of State and Local Revolving Loan Funds* (Somerville, MA: Mt. Auburn Associates, 1987).

8. See, for example, Roger W. Schmenner, *Making Business Location Decisions* (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1982); Michael Kieschnick, *Taxes and Growth: Business Incentives and Economic Development* (Washington, DC: Council of State Planning Agencies, 1981); Takeshi Nakabayashi, "A Survey on Location Decisions of Japanese Companies in the U.S.," unpublished paper for Mt. Auburn Associates and The Corporation for Enterprise Development, March 1987.

9. See Pat Choate and Susan Walter, *America in Ruins* (Washington, DC: Council of State Planning Agencies, 1981).

10. See Randall W. Eberts, "Estimating the Contribution of Urban Public Infrastructure to Regional Growth," Working Paper 8610, Federal Reserve Bank of Cleveland, December 1986.

4 The Policy Index



WA
OR
CA
NV
ID
MT
WY
UT
AZ
CO
NM
ND
SD
NE
KS
OK
TX
MN
IA
WI
IL
MI
OH
PA
NY
VT
NH
ME
MA
RI
CT
NJ
DE
MD
VA
NC
TN
AL
LA
HI
AK
Grades
A
B
C
D
F

Policy Report Card

	Tax & Fiscal Environment Subindex		Education Subindex		Infra./Amen. Investment Subindex		Business Support Subindex		Development Finance Subindex		Disadv. Indivs./ Communities Subindex		FINAL GRADE	
	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade
Alabama	33	C	44	D	31	C	33	C	42	D	49	F	47	F
Alaska	36	D	23	C	33	C	40	D	36	D	29	C	38	D
Arizona	34	C	43	D	38	D	48	F	49	F	39	D	49	F
Arkansas	28	C	38	D	37	D	13	B	14	B	33	C	30	C
California	1	A	3	A	2	A	32	C	28	C	3	A	4	A
Colorado	31	C	34	C	35	C	30	C	34	C	19	B	34	C
Connecticut	44	D	1	A	11	B	21	C	24	C	14	B	15	B
Delaware	24	C	8	A	14	B	34	C	37	D	39	D	27	C
Florida	39	D	2	A	13	B	37	D	47	F	18	B	27	C
Georgia	5	A	13	B	45	D	19	B	37	D	36	D	26	C
Hawaii	23	C	15	B	16	B	22	C	37	D	35	C	24	C
Idaho	6	A	49	F	50	F	39	D	45	D	26	C	43	D
Illinois	42	D	40	D	5	A	1	A	12	B	8	A	11	B
Indiana	19	B	27	C	45	D	8	A	4	A	47	F	25	C
Iowa	32	C	31	C	23	C	16	B	1	A	11	B	14	B
Kansas	21	C	36	D	29	C	12	B	8	A	23	C	19	B
Kentucky	11	B	26	C	27	C	14	B	42	D	49	F	32	C
Louisiana	38	D	28	C	28	C	47	F	14	B	48	F	41	D
Maine	3	A	34	C	11	B	27	C	8	A	21	C	10	A
Maryland	9	A	23	C	4	A	25	C	23	C	10	A	9	A
Massachusetts	10	A	18	B	7	A	36	D	4	A	2	A	6	A
Michigan	16	B	12	B	19	B	2	A	2	A	3	A	3	A
Minnesota	2	A	13	B	10	A	5	A	8	A	1	A	2	A
Mississippi	27	C	15	B	34	C	20	B	28	C	44	D	31	C
Missouri	30	C	39	D	18	B	10	A	19	B	41	D	29	C
Montana	47	F	41	D	40	D	37	D	4	A	27	C	37	D
Nebraska	40	D	48	F	36	D	42	D	26	C	17	B	42	D
Nevada	37	D	41	D	47	F	50	F	32	C	38	D	48	F
New Hampshire	49	F	47	F	24	C	44	D	34	C	29	C	45	D
New Jersey	35	C	4	A	1	A	4	A	26	C	11	B	7	A
New Mexico	29	C	11	B	32	C	49	F	30	C	42	D	36	D
New York	6	A	6	A	3	A	2	A	11	B	7	A	1	A
North Carolina	20	B	15	B	25	C	9	A	41	D	29	C	20	B
North Dakota	4	A	50	F	48	F	43	D	13	B	43	D	39	D
Ohio	12	B	31	C	22	C	5	A	17	B	21	C	11	B
Oklahoma	15	B	33	C	26	C	18	B	3	A	20	B	15	B
Oregon	41	D	22	C	8	A	22	C	32	C	16	B	22	C
Pennsylvania	22	C	5	A	16	B	14	B	4	A	13	B	5	A
Rhode Island	18	B	29	C	6	A	29	C	21	C	25	C	18	B
South Carolina	8	A	7	A	40	D	24	C	22	C	46	F	23	C
South Dakota	50	F	46	F	49	F	45	D	37	D	34	C	50	F
Tennessee	46	F	21	C	30	C	41	D	49	F	29	C	44	D
Texas	48	F	8	A	38	D	26	C	45	D	37	D	40	D
Utah	17	B	36	D	43	D	35	C	30	C	24	C	35	C
Vermont	14	B	19	B	19	B	31	C	19	B	6	A	11	B
Virginia	26	C	10	A	15	B	17	B	42	D	14	B	17	B
Washington	43	D	20	B	9	A	11	B	47	F	9	A	20	B
West Virginia	25	C	44	D	42	D	27	C	14	B	27	C	33	C
Wisconsin	12	B	23	C	21	C	5	A	25	C	5	A	8	A
Wyoming	45	D	30	C	44	D	46	F	17	B	45	D	45	D

4

POLICY

On January 12, 1988, Raymond Mabus climbed the steps of Mississippi's granite and marble state house in Jackson and took the oath of office, becoming the state's 60th governor. The oath completed, he turned to the assembled crowd and, borrowing a phrase from his campaign — presented his vision for the future. He said simply: "Mississippi will never be last again."

Everyone knew immediately what he meant. In six words, Mabus had captured Mississippi's economic past, its present, and its hopes for the future. And with the same six words he signaled in unmistakably clear terms his commitment to creating a new economic climate for Mississippi.

Several months later, after a series of regional public hearings, the 36 members of the Special Task Force on Economic Development Planning created by the Mississippi legislature sat down to make the vision a reality. Before each of them, the Governor had placed a notebook of readings that made it clear what strategy he had in mind. Mabus had concluded, as have several other leading state governors of both political parties, that what it takes to create a competitive state economy is precisely the same as what it takes to create competitive industries — and, for that matter, competitive nations: a long-term commitment, often at a time when one can least afford it, to investments in economic capacity, flexibility in the face of rapidly changing economic conditions, unwavering commitment to quality and to meeting the needs of the "customer" — the citizens government serves — and a commitment to investing in people.

Specifically, in his charge to the Task Force, Mabus said that being competitive means creating an economic climate:

". . . where job content and job skills are continually evolving technologically; where workers have the level of literacy and skills necessary to evolve with their jobs; where our education system is uniform and accessible, and works hand in hand with business; where our infrastructure allows ready access to raw materials and markets and information; where our legal and regulatory environment is responsive to evolving conditions; where our tax policies are balanced to support growth; where the institutions in our public and private sectors . . . support and cultivate 'intrapreneurship' and entrepreneurship; where a global perspective is rampant; where growth and prosperity spreads out across urban and rural areas without regard to race, religion, or gender; and where that segment of our population which is disadvantaged is declining rather than increasing."

This year, Mississippi is still last or nearly last in the Performance, Business Vitality, and Capacity Indexes of *The Development Report Card for the States*, but it is 30th in the crucial Policy Index, and rising fast. The hard fact of political and economic life is that it takes time, and long-term commitment to investments on the part of both public and private players, to create fundamental change in a state's economic climate. It has taken New England nearly two decades to struggle back from the collapse of its factory economy. The "Rust Belt" is reviving, but it will be several more years before its turnaround has a major impact on overall economic performance.

Change in a state's economic climate begins when public and private players in the economy agree that they need to take steps, together, to build up the development capacity of the state economy. Private industry invests in its people and in technology to increase productive capacity. The public sector invests in its capacity to support private sector development — assuring skilled workers, well-maintained infrastructure, support for technology-development, accessible capital, efficient government, fair taxes and so forth. And they may combine forces on capacity issues in which they hold common interest, such as public education.

Over time, changes in policy bring about changes in development capacity. Greater capacity nourishes businesses and increases business vitality. Finally, and often years later, vital businesses create improving economic performance.

Thus, the *Report Card's* Policy Index is a bellwether indicator. If consistently pursued, the policies incorporated in the Index will lead, in time, to a better economic climate — to greater economic capacity, more vital businesses and stronger overall economic performance. If they are not pursued, or are pursued inconsistently, a state's economic fortunes will continue to be determined by external forces, and progress will be frustrated by insufficient capacity.

The policy environment changes as fast as our economy does. Consequently, the Policy Index changes as well. For the most part, these changes reflect the deepening experience of state economic policymakers as they seek to create economic climates conducive to growth. Other changes reflect "index housecleaning," the continuous search for more precise measures and the weeding out of imprecise ones. In this regard, for example, this year we eliminated the subindex on "Good Governance" because, after all, that is what the entire Index is about and a few measures simply do not capture it. The one-stop permitting measure formerly in that subindex now appears in a subindex on "Business Support Services." Other changes are described below.

In grading this year's Policy Index, we weighted each subindex equally. This is not to suggest that each subindex is equally important. The fact is there is no way to determine systematically either the differences across policy areas or the importance of a given initiative to an individual state. What we measure here is *level* of effort, not necessarily *quality* or the *effect* of effort.

As we did last year, we augmented research from secondary sources by directly surveying every state. We were gratified that all but six states took the time not only to complete the survey, but to forward the concrete documentation we requested to verify their claims. For those that did not respond — Arizona, Connecticut, Florida, Nevada, New Mexico and Oregon — we were forced to rely solely on secondary, and thus weaker, sources. The effect, generally, is lower rankings for these states than might otherwise have been the case.

Subindex One: Tax and Fiscal Environment

While state and local governments commonly use tax abatements and tax incentives to entice out-of-state businesses to relocate, these inducements have relatively little effect on business location decisions. Other factors, such as proximity to markets or quality of life for employees are more important to employers and generally overwhelm whatever short-term advantages may be created by tax differentials.[1] What's more, since most new jobs come from in-state businesses, not businesses attracted from elsewhere, such abatements and incentives simply increase the tax burden on the very businesses that have the most to do with a state's present and future economic health.

But this does not mean that tax and fiscal environment of the state does not affect the economic environment in the state. On the contrary, three aspects of the issue are vital:

- *Fiscal Stability and Balance:* the use of an appropriate range of revenue-raising vehicles to establish a stable revenue base and support a consistent level of public investment;

- *Tax Fairness:* the equitable treatment of those who carry the tax burden; and

- *Fiscal Equalization:* ensuring that each community has relatively equal ability to deliver essential services.

Please see *Appendix D* for a full discussion of these tax and fiscal measures.

Fiscal Stability and Balanced Revenue Sources

Although it is impossible to define what the "best" tax and fiscal environment would be for any state, there are several widely-recognized characteristics we *can* identify.[2] The first is that major taxes are balanced so that no individual tax is unduly burdensome, and so that all taxes, taken together, help insulate revenues from recession and economic shocks, to the extent possible. The second is that the tax system, when combined with a fiscal system in which prudent controls guard against wide swings in tax levels and the quality of services, permits the state to provide businesses the assurances they need to make long-term investments.

Tax Fairness

It is occasionally argued that an equitably distributed tax system is antithetical to a good business climate — especially when it comes to a state's ability to lure branch plants and other footloose facilities by using special tax breaks. But if state and local governments are to be credible, citizens and businesses *already operating in the state* must be convinced that the taxes they pay are fair, that their tax dollars are being wisely invested and are supporting needed public services, and that one individual or company is not benefitting at the expense of another.

Fiscal Equalization

State policies to promote equal fiscal capacity among local governments are essential to a sound business climate. Such policies assure that all communities have an equal ability to provide an adequate level and quality of public services to firms and individuals. Furthermore, they reduce the likelihood that large property tax differentials between nearby communities will influence residential and business location decisions. More importantly, equalizing state fiscal aid can alleviate financial stress and high tax burdens in urban areas where taxable wealth has dropped and public service needs have risen.

Subindex Two: Education

Education policy has vaulted to the forefront of America's economic agenda. Employers, facing labor shortages in some areas, increasing skill demands in all areas, and a perceived decline in the work-readiness of our school systems' graduates, demand significant reform. Some have made significant investments on their own to improve education. Public agencies, increasingly aware of the direct relationship between education levels and social service demands, are moving on many fronts to bring about reforms. In short, education reform is increasingly synonymous with economic development.[3]

This year, we worked closely with some of the nation's leading education experts and several national organizations actively concerned with education reform to compile the Education subindex. As last year, this subindex combines a number of individual initiatives under two broad composite measures: *Support for Education* and *Reform of Education*. Neither of these composites is exhaustive; other innovations are being pursued throughout the nation. However, these initiatives are indicative of the level of effort in education support and reform, and can be measured across all states.

Support for Education

This composite measures the financial commitment states make to education. It includes:

- *Pupil Spending, K-12:* direct spending per pupil at the elementary and secondary level, adjusted for differences in personal income among states.

- *Pupil Spending, Higher Education:* direct spending at the post-secondary level at public colleges and universities, adjusted for differences in personal income among states.

- *Average Teacher Salary:* the average salary for all teachers, from newest to most experienced, for the 1987-88 school year.

- *Beginning Teacher Salary:* an indirect measure of state commitment to attracting new teachers during the 1987-88 school year.

- *Change in Teacher Salary:* change during the period in which renewed commitment to education has been a high priority: from the 1980-81 school year to 1987-88.

Reform of Education

Education reform initiatives generally fall within three categories: improving school accountability, strengthening teachers, and improving student performance.

School Accountability Policies

- *Comprehensive School Performance Indicators:* examines whether a state has established comprehensive indicators for measuring school performance, including data about students, school resources and instructional conditions.

- *School Incentives:* examines whether a state has established a system of rewards and sanctions tied to school performance levels. Treating schools as units and rewarding incremental improvements helps ensure that improvements and rewards accrue even to the most disadvantaged schools and districts.

Teacher Policies

- *Teacher Involvement:* assesses the extent to which teachers are involved in decisions about reforming the delivery of local education services.

- *Alternative Certification:* notes whether alternative routes to certification have been established to help alleviate teacher shortages in such key areas as math and science and bring non-traditionally-trained but talented teachers into the profession.

- *Teacher Incentives:* identifies whether bonuses, career ladders and other incentives exist to reward and retain the best teachers.

- *Beginning Teacher Mentoring:* recognizes programs to support and encourage new teachers.

Student Policies

- *High School Math and Science Requirements*

- *High School Competency Test Requirement*

- *Early Childhood Education Programs:* pre-school programs to improve the school-readiness of children from disadvantaged families.

Subindex Three: Infrastructure and Amenities

With the possible exception of public education, nothing demonstrates more clearly the interdependence of business and governance as the public responsibility to build and maintain infrastructure and protect amenities. Of the two, physical infrastructure — roads, bridges and other publicly-constructed facilities — is the most widely understood. But the concept of "amenities" has taken on a decidedly economic meaning as well. In more and more companies, employees are the most valuable resource, and attracting and retaining them can be key to a business's long-term success. Consequently, business and economic development officials have taken a new and much broader interest in what determines the amenity level in a state.

To begin to measure the extent to which each state is working to address these issues, we examine whether the state: maintains adequate public capital budgeting practices through which major infrastructure improvements are built and maintained, offers state-assisted programs to make housing affordable to all, is taking steps to safeguard the environment, and is acting to protect valuable farmland.

Public Capital Budgeting

While the existence of formal capital budgeting practices does not insure against the age-old habit of cutting repair and maintenance investments every time there is a budget crunch, it does suggest how seriously a state takes the challenge of maintaining the roads, bridges, water and wastewater systems, solid waste sites, dams and prisons that form a part of the quality of life picture. In this composite measure, we examine:

- *Facility Inventory:* whether states maintain a central unified inventory of public facilities.

- *Needs Assessments:* whether states provide regular assessments of facility conditions and investment needs.

- *Capital Plans:* whether states develop long-range capital plans to guide annual capital budget requests.

Housing

The plight of the homeless, estimated at between one and three million individuals of whom perhaps 30 percent are members of families with children, is only the most starkly visible evidence of a dramatic decline in the availability of affordable housing in America. Between 1980 and 1987, the U.S. Department of Housing and Urban Development's budget for housing was cut by 70 percent. Cuts were deepest in support for construction of federally-subsidized rental units: new starts plummeted from 129,400 in 1980 to only 19,000 in 1986. In addition, federal restrictions on state-issued tax-free bonds has made it difficult for states to make up for lost federal support.

As federal support has dropped, housing costs have risen. The average price of a new home has risen much faster than average incomes, locking many out of home ownership. At the same time, the cost of rental housing has risen sharply; gross rents rose 18 percent between 1974 and 1985 while the median income of renters *fell* 12 percent. The result of these trends is overcrowding, deteriorating housing stock, and increasing homelessness.

States are struggling to pick up the slack left by the withdrawal of the federal government. From 1980 to 1987, the number of state housing programs more than tripled. These efforts fall into three categories: increasing affordable housing, providing direct assistance to residents, and meeting the needs of special groups.

Affordability

- *New Construction Assistance:* including subsidized low-interest loans to for-profit and non-profit developers, deferred payment loans, and interest-free loans and grants for new multiple-unit rental housing.

- *Rehabilitation Assistance:* including low- or no-interest loans in exchange for equity or resale control until the loan is repaid, remortgaging assistance or forgivable loans, re-use of idle buildings, and mixed-use development, among other techniques.

- *Pre-Development and Development Cost Assistance:* including grants and subsidized loans to cover the costs of planning, feasibility studies, architect and engineer fees, land acquisition and closing fees; and revolving loans, loan guarantees, and short-term loans to leverage long-term financing for development.

Direct Assistance

- *Home Ownership:* including low-interest or interest-free first and second mortgages and loans for down payment, lease/purchase arrangements, land grants and property tax abatements in disadvantaged neighborhoods, interest-free second mortgages repayable only if resale occurs within a stated period (to discourage speculation), shared equity financing with proportional distributions upon resale, and so forth.

- *Tenant Assistance:* including temporary emergency rent payments, rent guarantees, rent subsidies, loan guarantees, energy cost assistance, and other programs that forestall homelessness for the most needy.

Special Housing Needs

- *Homeless:* including programs to prevent homelessness (grants to pay back rent, future rent, and security deposits, as well as loans with deferred payments set to a percentage of income), and shelter development grants, low- and no-interest loans, and revolving loan construction/rehabilitation funds.

- *Elderly:* including low-cost financing for housing for the elderly, rent subsidies, low-interest mortgages, reverse-equity mortgages for "house-rich, cash-poor" elderly, home energy assistance and repairs, and other home services to support independent living.

- *Housing Trust Funds:* established by states to address the special needs of a wide variety of groups and funded through a dedicated fee from real estate transfer taxes, oil overcharge fee windfalls, or lump-sum or annual general fund commitments.

Environment

It is increasingly clear that the quality of a state's environment has an important effect on its perceived economic climate. The reasons are several.

First, the real economic costs of wandering garbage barges, medical waste washing up on beaches, automobile emissions in dense metropolitan areas, trains laden with radioactive waste languishing on rail sidings with no place to go — and the like — are mounting and are borne increasingly by state and local governments.

Second, the health effects of local environmental problems, from air quality warnings to drinking water purity, are having measurable effects in some areas on workforce health and productivity.

Third, as employers trying to recruit scarce workers know only too well, people are making career decisions in part on the basis of perceived amenity levels in the communities where work is offered. Thus, how states respond to these challenges determines, in part, the attractiveness of their economic climate.

Our expanded environment measure examines environmental policy initiatives in four categories: solid waste management, hazardous waste management, air pollution control, and water pollution control.

Solid Waste Management

- *"Bottle Bills":* laws requiring deposits on glass, aluminum, and plastic containers, redeemable from retailers upon return.

- *Mandatory Recycling:* including either curbside separation of paper, glass and metals, or establishing percentage recycling of waste stream components.

- *Government Procurement of Recycled Paper:* including either price preferences for recycled products or a purchase quantity set-aside.

Hazardous Waste Management

- *Waste Minimization:* credits states with plans, staffs, and budgets for programs that offer technical and/or financial assistance for research and implementation of pre-disposal treatment, waste component recycling or inter-industry exchanges, and reduced waste production, as well as other hazardous waste minimization programs.

- *Waste Regulations:* credits states that exceed the bare minimum compliance requirements of the federal Resource Conservation and Recovery Act.

- *Property Transfer Law:* credits states (only two to date) requiring property owners to prove the absence of hazardous wastes prior to ownership transfer.

- *State Superfunds:* credits states that have enacted and funded hazardous state-level waste dumpsite cleanup programs similar to the federal "Superfund" program.

- *"Right-to-Know" Laws:* credits states that have passed legislation that guarantees workers and residents the right to know the identity and potential dangers of hazardous materials used or stored in their workplace or community.

Air Pollution Control

- *Toxic Air Pollution Control:* recognizes states that have developed programs that meet or exceed federally-mandated requirements to collect and monitor data on toxic air emissions, determine acceptable ambient levels, test facilities for compliance with established standards, issue permits and investigate complaints.

- *Air Permits and Emissions Fees:* to strengthen their air pollution control programs and augment inadequate public abatement funds, several states have expanded their permitting programs to establish emissions fees. We count only those states which have both enacted such programs *and* collected fees.

- *Indoor Air Pollution Control:* the quality of indoor pollution control programs is determined by the range of locations subject to restrictions, such as smoking prohibitions. We credit states with programs covering ten or more types of locations.

Water Pollution Control

- *Drinking Water Testing:* recognizes states that meet or exceed federal requirements to test for drinking water contaminants known to have adverse heath effects, and make the results available to the public.

- *Ban on Lead in Drinking Water:* state ban on use of lead products in drinking water supplies.

- *Surface Water Protection:* credits states that have developed programs to control such non-point sources of water pollution as agricultural, construction and urban runoff.

- *Groundwater Protection:* recognizes states that have established numerical standards for levels of contaminants in groundwater supplies.

Farmland Protection

In much of our country, towns were first founded in areas where the farmland was the best. Where those towns have prospered and become cities, their original main asset — prime farmland — is under heavy urban and suburban development pressure. The problem is important both because we need to assure a sustainable supply of reasonably-priced food, and because farmland has important open space value — a respite from concrete, steel and glass. This measure is a composite of the extent to which states have enacted any of several farmland protection initiatives. (Preferential/differential taxation for agriculture is not included here because it now exists in all states.)

- *Right-to-Farm Laws:* laws that protect farmers and ranchers from certain legal actions against normally accepted farm practices.

- *Development Rights — Purchase:* states that may purchase the development rights of farmland by paying the owner the difference between the market value and farm-use value of the land.

- *Development Rights — Transfer:* rights that allow qualifying developers to increase development density in designated receiving areas, if they purchase development rights from farmers whose property is in other designated sending areas. This serves to protect the use of land for farming and keeps farmers from being forced off their land.

- *Agriculture District Ordinances:* allow farmers to organize land into legally recognized geographic areas restricted to agricultural use.

Subindex Four: Business Support

For the small- and medium-sized businesses that increasingly drive our economy, staying competitive means having ready access to new technologies, assistance in applying those technologies, information on emerging markets — especially overseas — assistance in penetrating those markets, and a state regulatory environment that is genuinely supportive of new business development and business growth.

Most large corporations have specific divisions for technology development and application, market development, export trade, and the like. But most businesses of lesser scale do not. Given the speed of change, the fragmentation of markets, and intensifying competition, not just domestically but internationally, businesses lacking the kind of information these resources can provide have little hope of long-term success. In the last decade, states eager to encourage the growth of existing businesses and the birth of new ones have developed mechanisms for providing these vital support services, improving their economic climate in the process. In this subindex, we explore three composite measures: technology programs, international trade programs, and general business support programs.

Technology

State-supported technology programs tend to be of two types, those designed to stimulate research, especially in areas the state feels it has a competitive advantage, and those designed to assist technology-based companies, particularly to help them commercialize new ideas.

Stimulating Research

- *Research and Development Centers:* known as "Centers of Excellence" or "Advanced Technology Centers," and usually affiliated with universities, they involve a connection with private industry, and focus on specialized technologies. Often they spin off new companies, enhance the competitiveness of existing firms, and may induce a "critical mass" of expertise that becomes an engine of economic growth for an area.

- *Research Grants:* public funding, often requiring private matching funds from business, to pursue applied research that likely will serve the business' needs and the state's economic development goals.

Modernizing Companies

- *Technology Transfer:* programs that match promising research with the technical needs of the state's businesses.

- *Information/Networking:* programs designed to help private firms, public agencies, and universities solve common problems, provide access to data bases, identify sources of expertise, disseminate information on financing, and so forth.

- *Technical/Management Assistance:* includes programs providing technology companies with business plan and marketing strategy development assistance, product line evaluation, design and production technology assistance, and sources of additional expertise.

International Trade

The rise of international competition in virtually every product or service line has forced even small companies to seek export markets. But financial barriers and lack of information make penetrating these markets difficult. State programs to spur international trade fall into two categories:

Export Promotion

- *Counseling Services:* counseling on export procedures, sources of legal assistance, how to quote prices and other assistance, measured by the average number of counseling sessions per month.

- *Foreign Trade Offices:* the number of foreign offices run, directly or under contract, by the state to promote export trade.

- *Trade Seminars:* the total number of seminars offered by the state to businesses per year, teaching a range of skills needed to export — from financing to documentation or licensing.

- *Export Finance:* efforts to provide firms pre- or post-export credit or credit guarantees.

- *Trade Staff:* number of staff working directly on international trade assistance.

Export Information

- *Trade Leads:* efforts that develop overseas sales leads and deliver them to the appropriate companies.

- *Foreign Buyers:* efforts to match local companies with visiting foreign buyers.

- *Overseas Agent/Distributor Identification:* efforts to identify qualified individuals overseas who can match in-state companies with foreign markets.

- *Export Product Directories:* publications that provide information about products made by in-state firms that are available for export.

Special Business Services

Less glamorous than international trade and less trendy than technology programs, but in many ways more important than both, are programs that develop management expertise and simply make it easier to succeed in business within a state. Five such programs are measured in this category:

- *Small Business Development Centers:* providing new businesses with start-up assistance and existing businesses with management advice.

- *Business Incubators:* funding for publicly- or privately-established facilities that provide below-market rate office and lab space and shared clerical, reception and computer services for start-up companies, often located in or near advanced technology centers or commercial research parks.

- *One-Stop Permit Shops:* a single point of contact that streamlines permit applications and related business paperwork, with guaranteed review and decision timetables. This is a proxy for a range of regulatory reforms signalling a state's concern for timely business decisions.

- *Employee Ownership Assistance:* programs providing technical assistance, financing assistance and guidance on management and ownership responsibilities for employees interested in taking over a company threatened with closing, due to an owner's retirement, the decision of an absentee parent corporation to close a plant (unrelated to the plant's viability), or similar circumstance.

- *Labor-Management Assistance:* programs providing small seed grants for area and in-plant labor-management committees that promote flexibility and labor-management cooperation.

Subindex Five: Development Finance

Financial capital is the "grease" that keeps economic machinery turning smoothly. When capital does not flow to its most productive uses, for whatever reason, the machinery slows. Jobs are not created, new technologies are not developed and commercialized, the higher economic returns delivered by new or expanding enterprises do not occur, and the economic health of the state suffers. The more accessible capital is for a wide range of uses the better the economic climate is for business.

Existing financial institutions — commercial banks, insurance companies, venture capital firms, investment banks and others — do a pretty good job of assuring the availability of capital for large, well-established corporations. But research indicates that these institutions often fail to provide appropriate kinds and amounts of capital to the enterprises that create the majority of new jobs and economic energy in today's economy: new and young businesses, rapidly expanding businesses, businesses in new economic sectors.[4]

The reasons capital may be unavailable for such enterprises are many. An aversion to risk — even when the potential return may be high — renders some capital sources unavailable. The difficulty and cost of acquiring information on new, young or small firms discourages such investments. That's because the cost of putting together deals is about the same regardless of a business' size; thus, it costs less to put together one or two big deals than many smaller ones. Moreover, political, geographic, racial and gender biases do still exist. And regulatory and taxation policies — such as pension fund investment limitations, usury ceilings and the like — may simply prohibit existing institutions from making capital available to some enterprises, regardless of their soundness or future prospects.

To encourage capital markets to work more smoothly and meet development objectives, state governments have crafted a variety of financial innovations. This subindex examines the types of financing tools made available by new programs, the delivery mechanisms employed, and regulatory changes designed to encourage existing financial institutions to meet a broader range of needs.

Financing Types and Diversity

At each stage in their life cycle — from the start-up of a brand new business to the retooling of a mature one — businesses need different kinds of capital. When the right kind of capital isn't available at a given stage, it can bring the growth of any business to an abrupt halt. To improve the climate for business growth, many states have developed finance programs specifically designed to fill discovered gaps in the spectrum of private financing sources. This measure identifies state-sponsored capital market intermediary institutions that help assure that the full range of business capital needs are met.

- *Seed Capital Funds:* state investment funds, generally in the form of equity participation, providing very early, and generally small amount, financing to help entrepreneurs prove the viability of a product or business concept not yet in the production stage.

- *Venture Capital Funds:* high-risk, start-up or expansion financing, generally equity or convertible debt, to meet needs not met by private venture capitalists: smaller investments, investments in industries not pursued by venture capitalists, or investments in states where private venture capital is unavailable. (California, Massachusetts and New York housed two-thirds of all U.S. venture capital in 1986.)

- *Product Development Finance:* high-risk financing for new product or production process development, generally provided to mature firms and repayable through royalties tied to product sales. Such financing permits states to encourage innovation and modernization in mature firms without exposing the firm to undue risk.

- *Long-Term Finance:* low-risk debt financing for plant (repayable from 10 to 30 years) or equipment (repayable from 5 to 10 years) that provides more predictable interest payments than do the increasingly common variable commercial lending rates. In some cases, states are the only source of such capital at fixed rates for small companies.

- *Medium-Risk Intermediate/Long-Term Finance:* generally provided on a subordinated or unsecured basis, or secured by "soft" assets such as inventory or accounts receivable.

Leveraging Innovations

While the diversity of state-created business finance programs is important, it is also critical to examine whether states employ innovative delivery mechanisms that offer financing to businesses in the most efficient and effective manner. Finding innovative ways of using limited state resources to leverage significant private resources in the service of public development aims is crucial to improving the business climate. So too is ensuring that capital access programs are flexible enough to meet, for example, the different conditions and needs of regions within the state and of very small enterprises commonly ignored by conventional financial institutions. Several innovative delivery systems have been developed to achieve these objectives:

- *Leveraged Public Investments:* direct state investment in private or quasi-public financial institutions specifically designed to channel their resources to investments that meet public aims. Examples include state investments in BIDCOs and BDCs, or in venture capital funds that agree to invest in in-state firms. The state's investment in these institutions is matched or exceeded by private investments.

- *Tax Credit Finance:* the provision of state tax credits, typically staged over several years, to private investors who invest in private or quasi-public institutions designed to make investments that achieve state development aims.

- *Loan Guarantees:* covering both state and local industrial revenue bonds and conventional financing, these programs are designed to stimulate private investment by having the state absorb some or all of the financial risk.

- *Secondary Market Mechanisms:* in which states help banks and financial institutions improve their liquidity and the terms of their business loans by purchasing loans the financial institutions originate (such as SBA-guaranteed loans), often obtaining funds for these purchases by issuing bonds.

- *Linked Deposits:* designed to alter the lending behavior of banks by tying the state's willingness to deposit its resources in the bank to the bank's willingness to provide financing for sectors or purposes specified by the state. Often state funds are invested at below-market rates in exchange for the bank's agreement to make loans at below-market rates.

- *Sub-State Development Finance Support:* direct investment in, state guarantee of, and/or the creation of secondary markets for the financings made by local and regional development finance institutions especially attuned to the opportunities and specialized capital needs of sub-state areas.

Regulatory Innovations

Four of the five trillion dollars in the U.S. economy are controlled by financial institutions that are licensed and regulated by government — banks, savings and loans, and insurance companies, among others. Any policy that makes even a small change in the investment practices of such institutions will have a dramatic effect on the availability of capital to businesses in that economy.

- *Pension Fund Investment:* In-state pension funds — many with billions of dollars in deposits — are often legally restricted from investing in the very communities where the people who contribute to and benefit from the fund live. In some cases, statutory lists specify the types of securities the funds can invest in. To free some of these resources for local investment, many states have eliminated the lists altogether, substituting the "prudent investor" language of the federal Employee Retirement Income Security Act, which governs private pension fund investment practices. Under this language, some fund assets can be invested in qualifying in-state businesses, while still protecting the integrity of the fund. Other states have modified their lists to permit some investments in in-state corporate equities, small businesses, SBA loans, limited partnerships with venture capitalists, and affordable housing. This measure indicates whether in-state public pension funds are invested in-state in venture capital, secondary markets, or other such vehicles.

- *BDCs and BIDCOs:* Business Development Corporations (BDCs) are statewide, publicly-chartered, privately-managed corporations, usually capitalized by commercial banks, savings banks or insurance companies. Business and Industrial Development Corporations (BIDCOs) are state-regulated and -chartered, privately managed institutions, also capitalized by private (and, sometimes, public) investors. They differ from BDCs principally in that more than one can be chartered to operate in a state. Both are designed to provide medium- to high-risk debt and equity capital to businesses that are unlikely to get financing from conventional lenders, despite their overall soundness.

- *Community Reinvestment Acts:* Several states have enacted their own versions of the federal Community Reinvestment Act of 1977. These state CRA laws often require banks to demonstrate that they have taken steps to meet the credit needs of local businesses, based in the communities where the banks are chartered. CRA laws can also apply whenever banks seek to open or close branches in a community or undergo mergers or acquisitions. We identify which states have such requirements.

- *Interstate Banking:* While the acquisition of small in-state banks by larger out-of-state money center and regional banks may increase competition and customer services, some worry that out-of-state banks will be insensitive to local financing needs. Accordingly, some states have enacted legislation requiring out-of-state banks to make explicit commitments to meet community credit needs as a precondition for state approval of the acquisition.

Subindex Six: Disadvantaged Communities and Individuals

When it comes to how the benefits of economic development are distributed, all communities and individuals are not created equal. We see this fact of economic life in urban neighborhoods abandoned by the businesses that once supported them, and in rural communities emptied by demographic change. We see it also in individuals who have been displaced by rapid economic change or who may never have participated productively in the economy in the first place.

We measure investment in disadvantaged individuals and communities not only for social reasons, but for fundamentally economic ones. With workforce and skill shortages emerging throughout the nation, and with a continuing premium on innovation and innovators in all dimensions of economic life, confining some individuals and communities to the margins of the economy is intolerably expensive — not only because of the social costs but also because of the productive capacity foregone. Discarding, or simply disregarding, disadvantaged individuals and communities depletes a state's economic base and hobbles its future.

Unlike our more homogeneous competitors, West Germany and Japan, America has long fashioned economic strength from its social diversity. We need to find new ways of applying that formula to those currently sidelined or bypassed by economic change. Some states are already doing so, for example, by turning transfer payment programs (like welfare and unemployment insurance) designed to promote economic equity into programs that promote entrepreneurship, self-employment, and self-investment in marketable skills, thus increasing economic efficiency.

To identify how well states are meeting these needs, we examine two types of programs: those that aid disadvantaged communities, and "transfer payment investment" strategies that aid economically disadvantaged individuals.

Aid to Distressed Communities

All states provide technical assistance and intensified business attraction strategies to help communities face economic difficulty, some more successfully than others. But chronically distressed communities, and communities facing a major plant closing require more intensive care.

- *Targeted Assistance:* including loans and equity investments for special projects, as well as operational support grants for private, non-profit community organizations pursuing comprehensive economic revitalization in chronically distressed areas.

- *Tripartite Committees:* credits states that use tripartite committees composed of labor and management representatives and a neutral chairperson to help communities adjust to plant closings, workforce reductions, and other abrupt industrial changes.

Transfer Payment Investment

Transfer payments — welfare, unemployment compensation, social security and Medicaid, for example — are typically viewed as drags on the economy. In fact, however, they often stabilize economies and individuals in distress by preserving purchasing power, conserving human capital, maintaining basic living standards and — particularly in rapidly changing economies — reducing resistance to productive change.

Beyond stabilizing incomes and economies, transfer payments can be even more effective contributors to economic development if they are used to encourage and support training, education, re-employment and self-employment. States that develop transfer payment investment (TPI) programs can begin to reduce the fiscal cost of dependency in a state economy, enlarge and improve the workforce, reduce social tension and create the spirit of enterprise and hope which is the backbone of a healthy economy.[5]

Here we examine a variety of efforts to reform the basic use of transfer payments so as to promote economic independence, including: assessing the comprehensiveness and stability of funding for welfare-to-work programs; the levels of AFDC and Medicaid benefits; the availability of transitional support services for welfare recipients as they move back into the mainstream economy; and the extent to which Unemployment Insurance is used to encourage and support self-sufficiency.

Please see *Appendix E* for a full discussion of the these transfer payment investment measures.

- *Welfare-To-Work Programs:* identifies whether states participate in work demonstration projects, work supplementation projects and self-employment demonstration projects.

- *Transitional Support Services:* measures the availability of child care and health services to AFDC recipients both during and after their participation in employment training, including Title XX day care slots for AFDC recipients, additional state child care for AFDC recipients and separate child care programs for non-AFDC low-income families, and extended Medicaid coverage for AFDC recipients in transition to full-time employment.

- *Benefit Level Adequacy:* federal Aid to Families with Dependent Children (AFDC) and Medicaid benefit levels are determined by the state and offer an indication of the state's willingness to ensure a decent standard of living for its least advantaged citizens, and to determine in the most fundamental way whether they will be able to pursue education, training and economic independence.

- *Unemployment Insurance Work Transition Programs:* including self-employment demonstration projects, use of UI funds for education and training, and use of funds for re-employment bonuses and work-sharing programs.

Findings

This year's Policy Index findings demonstrate three general principles about the competitiveness of state economic climates.

First, creating and maintaining a competitive economic climate is a little like riding a bicycle: you can only stay upright and keep moving forward if you keep peddling. States that "coast" in this index, especially those at the top, soon are overtaken by harder-working states; if they coast long enough, they topple down the list. Because of this principle, there is a good deal of "churning" between adjacent grades — between *A* and *B*, between *D* and *F*, and so forth.

The second principle is, in effect, that "the more things change, the more they remain the same." That is, states that have been aggressive in shaping their economic climates in the past continue to be aggressive today, and those that have been inactive — with occasional exceptions — continue to be inactive. In general, states that have been in the top half of this Index in the past continue to be near the top this year, and those that have been in the bottom half generally remain in that half. There is an overall constancy.

The third principle is that "when the going gets tough, the tough get going." Each year, one or two of the states whose economies have been [illegible] poorly will mount major, and often wide-ranging efforts to change their economic climates. These states are easy to recognize; they typically receive *D*'s or *F*'s in the Performance, Business Vitality, and Capacity Indexes, but receive an *A* or *B* in the Policy Index. The standout this year is Oklahoma, jumping from an *F* last year to a *B* this year. Most of this change is due to a comprehensive effort to upgrade economic policies and alter the state's overall economic climate — with special emphasis on support of business development and new development finance initiatives. Tired of having its energy and agriculture-dependent economy battered by external forces, Oklahoma is striving to gain control of its own economic destiny.

Oklahoma's effort this year is unlikely to result in dramatic changes in its rankings in other indexes next year; change takes time and state resources are limited. Nevertheless, it underscores a fundamental point we made last year:

> *State governments can, by their own actions, create an environment in which businesses can grow, economies can expand*

and opportunity can be widely shared. Just as clearly, by their inaction, states can render their economies lifeless and uncompetitive.

For all states, movement in the Policy Index has been affected by several factors. The first, as noted, is their own action or inaction in the economic policy arena. The second is the action of others; positions in this Index are strictly relative. The third is improvements made to the structure and content of the Index that make it more rigorous and more comprehensive this year. These Index changes have effectively changed the "curve"; Policy is a tougher course this year. So a *C* this year, for example, is harder to get — and indicates more Policy success — than did a *C* last year. Fourth is the limits of research methods: the seven states that did not respond to the Policy survey, and the few additional states that did not provide documentation for the policy claims they made, may receive lower grades than they might actually deserve. Several of these states, it should be noted, had lame duck administrations or (as was the case in Arizona) were embroiled in political controversy that overshadowed any initiative. These cautions having been made, however, the Policy Index provides an illuminating portrait of what is happening in the nation's state houses.

As we might expect, most states that lead in other indexes also lead in the Policy Index. Many New England states, for example, are in or near the top ten. Even Rhode Island, which previously had been coasting on the spillover effect of the economic boom in eastern Massachusetts, has made a significant jump to a *B*. Only New Hampshire remains a persistent underachiever, still coasting with a *D*.

Perhaps more important, however, is that all but one of the "Rust Belt" states that have begun to show stronger economic performance also appear in or near the top ten in the Policy Index, with Michigan the star pupil at 3rd. Like the traditional manufacturing industries that form the backbone of their economies, these states have learned what it takes to be competitive in today's increasingly global economy. The new partnerships they have formed with business, labor and academia, and the bold economic development initiatives they have undertaken with limited resources, demonstrate a cast iron commitment to creating economic climates capable of going head-to-head not only with other states, but with other nations as well.

Much of the South places higher in the Policy Index than in other Indexes, reflecting serious attempts to end decades of poor economic performance. Having discovered how fleeting were the attentions of the factories they lured south in the 1960s and 1970s with promises of cheap labor, tax abatements and other incentives, they have now begun reinvesting in education, home-grown business development, infrastructure and capital markets. Virginia and North Carolina both earn a *B* in Policy this year. South Carolina, Mississippi, Arkansas, Georgia, and Florida each receive *C*'s in Policy. Louisiana and Tennessee receive *D*'s, but have higher scores than last year. Only Alabama receives an *F* this year. The message here is clear: the South will not be the nation's "poor relations" much longer.

The states that *can* lay claim to that dubious title are the Great Plains and Mountain West states — in particular, South and North Dakota, Nebraska, Wyoming, Idaho, Montana and New Mexico. Not only do these states earn among the lowest standings in Performance, Business Vitality, and Capacity, but their overall *D* and *F* scores in Policy demonstrate that they are doing little to improve their own lot in the future. Long used to boom-bust cycles, these commodity-producing states appear to be waiting for the next boom, despite growing evidence that the increasing complexity of the national and international economy has changed the old cycles. These states are like passengers waiting at a station for a train that may never come. They stand in sharp contrast to two of their neighbors — Oklahoma and Iowa — both of which have established comprehensive new economic strategies designed to free them from the tyranny of dependence on commodity cycles.

In the end, the Policy Index offers two overarching lessons: first, that even the poorest state can be master of its own fate, and second, that what characterizes the states with the best economic climates is the *presence* of aggressive development initiatives, not the *absence* of them.

There are lessons to be learned as well from the individual subindexes in the Policy Index. In the Tax and Fiscal Environment subindex, for example, there is a strong correlation between the overall performance of an economy and the stability and fairness of its tax and fiscal policies. In addition, efforts at tax and fiscal policy reform are responsible for several strong performances in the Index, notably Oklahoma, California and Vermont, among others.

In the Education subindex, the states in the lead are not necessarily leaders in the Index overall. Instead, they might best be described as having "squeaky wheels" economic problems that cry out for education remedies. Included at the top of this subindex are booming states whose labor shortages underscore how unsuccessful their education systems are at producing work-ready workers — for example, Connecticut, New York, New Jersey and California — and southern states that are now committed to "bootstrapping" their way out of a legacy of illiteracy — including South Carolina, Mississippi, Virginia and Georgia.

The Infrastructure and Amenities subindex is dominated by densely populated — New Jersey, New York, Illinois — or fast-growing — Rhode Island, Washington, Maine — states whose infrastructure limitations can no longer be ignored. Also at or near the top are states that have a history of commitment to maintaining environmental quality, not simply for amenity reasons but as an integral part of their overall economic strategy. States in this group include Minnesota, California, Oregon, Massachusetts and Michigan, among others. Several states at the bottom of this list are thinly populated and, perhaps as a result, less concerned with these issues. Two states with large and growing populations — Georgia and Indiana — also are at the bottom of this subindex, suggesting that growth in the future may be limited by inattention to infrastructure needs today.

The leaders in the Business Support subindex demonstrate the timeless truth of the saying "Necessity is the mother of invention." All the states in the top ten are heavily industrial, struggling mightily to turn around aging industries. The explanation for the renewed vigor and global competitiveness of America's manufacturing industries can be found, in part, in these standings. These are the states with the strongest working partnerships between the public and the private sectors. Not surprisingly, the states with the lowest scores on this subindex are the weakest overall economic performers nationwide.

The standings in the Development Finance subindex present a curious picture, combining states with very poor recent economic performance that are mounting aggressive turnaround strategies — Oklahoma, Michigan — with capital-rich states that have had strong economies for some time — Connecticut, Massachusetts, New York. What ties them together is their common recognition that it is not how *much* capital you have, but how *accessible* it is that matters in economic development.

Finally, what is intriguing about the results of the Disadvantaged Communities and Individuals subindex is what it is *not.* It is not a measure of how poor states are; there are states with chronic poverty problems at both extremes of the list. The common characteristic of the states at the top of this subindex — rich and poor, urban and rural — is their aggressive and imaginative approaches to addressing the problems of the least advantaged individuals and the most troubled communities within their boundaries. Working within the same federal program limitations and often with similar fiscal limitations, some states simply do a better job of bringing their least advantaged back into the economic mainstream than do others. Among the leaders in this area are California, Maryland, Michigan, Minnesota and Wisconsin.

Policy Data

	TAX AND FISCAL ENVIRONMENT*								EDUCATION					
	Stability/ Balance		Tax Fairness		Fiscal Equalization		FINAL		SUPPORT FOR EDUCATION					
									Pupil $, K-12		Pupil $, Higher		Average Salary	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank	%	Rank	%	Rank	$	Rank
Alabama	58.1	27	23.0	45	60.9	11	142.0	33	24	43	38	8	23,201	40
Alaska	37.5	43	27.6	39	71.9	1	137.0	36	50	1	95	1	40,510	1
Arizona	57.2	29	37.0	31	47.5	26	141.7	34	21	50	24	25	27,388	23
Arkansas	68.6	19	32.9	36	52.3	23	153.8	28	26	32	44	5	20,340	49
California	90.0	5	74.0	5	62.7	9	226.7	1	23	46	23	30	33,200	5
Colorado	64.2	23	50.9	19	34.7	44	149.8	31	27	29	22	35	28,651	15
Connecticut	49.6	35	24.1	44	35.5	43	109.2	44	29	14	16	46	33,776	4
Delaware	38.4	42	51.9	18	69.8	2	160.2	24	33	9	24	25	29,573	12
Florida	52.9	33	20.2	46	49.3	25	122.4	39	29	17	26	23	25,198	27
Georgia	90.4	3	50.2	20	56.8	17	197.4	5	24	40	32	14	25,736	25
Hawaii	53.9	32	37.3	30	69.1	3	160.3	23	30	13	39	7	28,445	16
Idaho	85.0	10	56.9	13	54.2	20	196.1	6	22	47	33	13	22,242	44
Illinois	54.9	30	25.4	42	38.1	39	118.4	42	26	35	19	42	29,716	11
Indiana	86.9	6	31.5	38	54.0	21	172.3	19	26	33	24	25	27,067	24
Iowa	66.3	21	38.9	28	43.9	30	149.1	32	27	27	22	35	24,867	29
Kansas	52.5	34	78.8	3	38.0	40	169.3	21	29	18	24	25	24,647	32
Kentucky	85.3	9	36.1	33	62.9	8	184.3	11	28	25	35	10	24,274	35
Louisiana	30.9	46	36.2	32	57.9	15	125.1	38	29	16	34	12	21,209	47
Maine	86.6	7	82.6	2	42.8	31	212.0	3	29	14	21	38	23,425	39
Maryland	70.1	17	70.7	8	45.8	27	186.6	9	28	21	22	35	30,933	7
Massachusetts	64.2	23	60.5	12	60.2	12	184.9	10	28	22	13	49	30,800	8
Michigan	78.2	15	62.5	11	39.8	37	180.5	16	28	22	23	30	34,050	3
Minnesota	96.2	1	73.1	6	53.5	22	222.9	2	29	18	28	18	29,756	10
Mississippi	47.7	36	49.2	22	58.3	14	155.2	27	26	33	47	2	20,750	48
Missouri	78.2	15	36.1	33	36.2	42	150.5	30	24	39	19	42	24,704	31
Montana	15.6	50	42.6	25	31.3	46	89.4	47	35	5	31	15	23,774	38
Nebraska	46.0	37	52.5	16	21.5	50	120.0	40	23	44	21	38	22,995	42
Nevada	40.1	39	26.0	40	63.5	7	129.6	37	25	37	27	20	27,599	21
New Hampshire	19.8	49	24.4	43	25.6	49	69.8	49	22	49	8	50	24,019	37
New Jersey	54.2	31	41.3	26	42.5	32	138.0	35	34	8	23	30	30,788	9
New Mexico	32.1	45	56.1	15	65.0	4	153.2	29	32	11	45	4	24,523	33
New York	84.4	11	74.5	4	37.2	41	196.1	6	37	3	20	40	34,300	2
North Carolina	80.0	14	35.2	35	56.5	18	171.7	20	29	18	35	10	25,073	28
North Dakota	61.8	25	72.2	7	65.0	4	199.0	4	24	42	29	17	21,660	46
Ohio	90.2	4	52.0	17	39.8	37	182.0	12	27	26	20	40	27,606	20
Oklahoma	80.8	13	44.3	24	55.7	19	180.9	15	22	48	27	20	23,100	41
Oregon	23.4	48	68.6	10	27.2	48	119.1	41	32	10	23	30	28,080	17
Pennsylvania	84.0	12	38.8	29	45.5	28	168.3	22	34	6	18	45	29,177	14
Rhode Island	65.5	22	69.3	9	42.1	33	176.9	18	32	12	14	47	32,858	6
South Carolina	92.0	2	49.3	21	50.8	24	192.1	8	27	27	42	6	24,241	36
South Dakota	24.8	47	7.2	50	28.9	47	60.9	50	26	31	19	42	19,758	50
Tennessee	41.4	38	7.3	49	41.6	34	90.3	46	24	40	31	15	24,748	30
Texas	35.0	44	12.4	47	40.5	36	87.9	48	25	36	28	18	25,387	26
Utah	86.6	7	31.8	37	59.9	13	178.3	17	23	45	27	20	22,783	43
Vermont	57.8	28	91.9	1	32.1	45	181.8	14	35	4	14	47	24,507	34
Virginia	68.7	18	45.7	23	44.4	29	158.8	26	25	37	25	24	27,436	22
Washington	40.0	40	11.3	48	65.0	4	116.3	43	27	30	24	25	27,960	18
West Virginia	58.8	26	39.2	27	62.0	10	160.0	25	28	24	37	9	21,736	45
Wisconsin	67.9	20	56.9	13	57.1	16	182.0	12	34	7	23	30	29,206	13
Wyoming	38.8	41	26.0	40	41.6	34	106.4	45	45	2	46	3	27,926	19

*Please refer to appropriate appendix for further discussion and detail.

EDUCATION

	Begin. Salary		Salary Change		REFORM OF EDUCATION									
					Accountability		Teacher Policies					Student Policies		
	$	Rank	%	Rank	Perform. Indicators	School Incentives	Teach. Involv. Score	Rank	Altern. Certif.	Teacher Incents.	Teacher Mentors	Sci./Math Reqs. Units	H.S. Comp. Test	Preschool Programs
Alabama	**18,200**	**22**	**53**	**36**		—	**33.3**	**41**	■			**3**	■	
Alaska	26,880	1	40	46			41.1	9				4		
Arizona	**19,300**	**11**	**58**	**29**			**38.5**	**16**	■			**4**		
Arkansas	15,996	41	53	35		■	33.8	39	■			5	■	
California	**21,900**	**2**	**69**	**9**	■	■	**40.3**	**13**	■	■		**4**	■	■
Colorado	16,813	35	62	19	■		42.9	7				0		■
Connecticut	**20,703**	**3**	**94**	**1**	■	■	**38.1**	**19**	■		■	**5**		■
Delaware	19,100	12	59	27	■		35.0	31	■			4	■	■
Florida	**19,500**	**8**	**64**	**17**	■	■	**28.0**	**49**	■	■	■	**6**	■	■
Georgia	19,400	10	67	13		■	33.9	38	■		■	4	■	
Hawaii	**18,698**	**17**	**36**	**49**	■	■	**41.8**	**8**				**4**	■	
Idaho	14,793	50	47	40			37.6	22				4		
Illinois	**17,804**	**26**	**52**	**37**	■	■	**35.5**	**29**				**3**		■
Indiana	17,300	32	60	23	■	■	34.7	32			■	4		■
Iowa	**18,721**	**16**	**54**	**34**	■		**37.4**	**23**		■		**6**		■
Kansas	17,377	30	62	19	■		38.6	15				4		
Kentucky	**16,150**	**40**	**56**	**33**	■	■	**38.3**	**17**			■	**5**		■
Louisiana	14,966	48	42	45		■	27.2	50	■		■	6	■	■
Maine	**15,863**	**42**	**67**	**12**			**47.6**	**2**		■	■	**4**		
Maryland	19,478	9	60	23			29.8	46				5	■	■
Massachusetts	**18,800**	**14**	**68**	**10**		■	**36.2**	**27**	■	■		**0**		■
Michigan	20,100	6	62	18		■	37.9	20	■			0		■
Minnesota	**19,625**	**7**	**73**	**5**		■	**44.3**	**4**				**2**		■
Mississippi	16,600	36	60	26	■	■	37.3	24	■	■	■	4	■	
Missouri	**17,717**	**27**	**60**	**25**			**34.7**	**32**		■	■	**4**		■
Montana	16,273	39	49	39			40.0	14	■			3		
Nebraska	**15,595**	**43**	**57**	**31**			**37.8**	**21**				**0**	■	
Nevada	18,523	18	56	32	■		29.6	47			—	3		
New Hampshire	**17,300**	**32**	**70**	**8**			**44.8**	**3**	■			**4**		
New Jersey	20,500	5	68	11	■	■	30.7	45	■	■		5		■
New Mexico	**17,897**	**25**	**45**	**44**	■	■	**34.0**	**37**	■		■	**5**	■	
New York	20,650	4	61	22	■	■	34.6	34		■		2	■	■
North Carolina	**17,600**	**29**	**58**	**28**		■	**35.2**	**30**	■		■	**4**	■	
North Dakota	15,218	45	46	41			36.2	27				4		
Ohio	**16,374**	**38**	**70**	**7**	■		**34.4**	**35**	■			**3**		■
Oklahoma	16,432	37	58	29		■	38.3	17	■		■	4		■
Oregon	**18,022**	**23**	**52**	**38**	■		**43.4**	**6**				**4**	■	■
Pennsylvania	18,400	20	65	16	■	■	33.7	40	■	■	■	6		■
Rhode Island	**17,302**	**31**	**66**	**14**	■		**31.1**	**44**				**4**		■
South Carolina	17,609	28	72	6	■	■	37.0	25		■	■	5		■
South Dakota	**15,020**	**47**	**45**	**43**			**40.8**	**11**	■		■	**4**		
Tennessee	16,970	34	76	4			34.3	36		■	■	4	■	■
Texas	**18,800**	**14**	**62**	**21**	■	■	**31.7**	**43**	■	■		**5**	■	■
Utah	15,266	44	37	47	■		36.4	26		■	■	4		■
Vermont	**14,966**	**48**	**85**	**3**	■		**48.6**	**1**	■			**5**	■	■
Virginia	18,439	19	87	2		■	32.6	42	■		■	6	■	■
Washington	**17,905**	**24**	**35**	**50**	■	■	**40.9**	**10**		■	■	**4**		■
West Virginia	15,055	46	45	42	■		29.5	48	■			4		
Wisconsin	**18,332**	**21**	**66**	**14**			**40.7**	**12**				**4**		■
Wyoming	19,000	13	37	48			43.7	5				0		

Please refer to *Policy Index Data Sources* and the *Policy Index* for further detail on individual measures.

INFRASTRUCTURE AND AMENITIES

PUB. CAPITAL BUDGETING			HOUSING											
			Affordability			Direct Asst.		Special Needs			Solid Waste			
Facility Inventory	Needs Assess.	Capital Plans	New Const. Assist.	Rehab. Assist.	Dev Cost Assist.	Home Ownshp.	Tenant Assist.	Homeless	Elderly	Trust Funds	Bottle Bill	Mandatory Recycling	Paper Procure.	
■	■	■												**Alabama**
				■	■	■			■				■	Alaska
	■	■							■					**Arizona**
			■						■					Arkansas
■	■	■	■	■	■	■	■	■	■		■		■	**California**
			■	■	■			■						Colorado
			■	■	■	■	■	■	■	■	■	■	■	**Connecticut**
■	■	■	■	■	■	■	■		■	■	■			Delaware
■	■	■								■		■	■	**Florida**
								■						Georgia
■		■	■	■	■	■	■	■	■	■				**Hawaii**
														Idaho
■	■	■	■	■		■		■	■				■	**Illinois**
			■											Indiana
			■			■		■		■	■		■	**Iowa**
	■	■	■	■					■					Kansas
			■			■			■	■				**Kentucky**
■	■	■	■			■			■					Louisiana
■			■	■	■	■		■	■	■	■		■	**Maine**
■	■	■	■	■		■	■	■	■			■	■	Maryland
	■	■	■	■	■	■	■	■	■	■	■		■	**Massachusetts**
■	■	■	■	■							■		■	Michigan
	■	■		■		■		■	■	■		■	■	**Minnesota**
■	■	■	■											Mississippi
■	■	■	■	■	■	■	■	■					■	**Missouri**
								■						Montana
			■						■					**Nebraska**
■	■	■												Nevada
	■	■				■				■			■	**New Hampshire**
■	■	■	■	■	■	■	■	■	■	■		■	■	New Jersey
■	■	■		■			■							**New Mexico**
■	■	■	■	■	■	■	■	■	■	■	■		■	New York
		■	■				■		■	■				**North Carolina**
														North Dakota
■		■	■	■	■	■		■	■				■	**Ohio**
■	■	■						■					■	Oklahoma
■	■	■			■				■		■	■	■	**Oregon**
	■	■		■		■	■	■	■			■	■	Pennsylvania
■	■	■	■	■	■	■		■	■	■		■	■	**Rhode Island**
						■								South Carolina
				■		■	■							**South Dakota**
■	■	■		■		■			■					Tennessee
■													■	**Texas**
								■						Utah
	■	■		■	■				■	■	■	■	■	**Vermont**
■	■	■	■	■				■						Virginia
■	■	■	■	■				■		■			■	**Washington**
			■		■	■								West Virginia
	■		■		■			■	■			■	■	**Wisconsin**
■	■	■												Wyoming

INTRASTRUCTURE AND AMENITIES

	ENVIRONMENT												FARMLAND PROTECTION			
	Hazardous Waste					Air Pollution			Water Pollution							
	Waste Minimiz.	Waste Regs.	Property Transfer	State Superfund	Right-to-Know Laws	Toxic Control	Permits/ Emissions	Indoor Air	Drinking Water	Lead Ban	Surface Water	Ground-water	Right-to-Farm Laws	Dev.Rts. Purchase	Dev.Rts. Transfer	Agri.Dist. Ordins.
Alabama				■	■	■	■		■	■	■		■			
Alaska					■	■		■	■			■	■			
Arizona				■			■		■	■		■	■			
Arkansas		■		■			■						■		■	
California	■	■		■	■	■	■	■	■	■		■	■		■	■
Colorado							■	■	■			■	■			
Connecticut	■		■		■	■	■	■	■	■	■		■	■		
Delaware					■	■	■		■	■	■		■			
Florida	■			■	■		■	■	■	■	■	■	■		■	
Georgia	■					■					■	■	■			
Hawaii				■		■	■	■	■	■			■			■
Idaho								■				■	■			
Illinois	■	■		■	■	■	■		■	■	■	■	■			■
Indiana				■	■				■	■			■			
Iowa				■	■	■	■	■	■	■	■		■			■
Kansas				■	■	■	■	■	■	■	■	■	■			
Kentucky	■			■	■	■	■			■			■			■
Louisiana		■		■	■		■				■		■			
Maine		■		■	■		■	■	■	■	■	■	■	■	■	■
Maryland		■		■	■		■		■	■	■	■	■	■	■	■
Massachusetts	■	■		■	■	■	■		■	■		■	■	■		
Michigan	■	■		■	■	■		■	■	■	■	■	■			
Minnesota	■	■		■	■		■	■	■	■	■	■	■			■
Mississippi				■						■			■			
Missouri		■		■			■		■		■	■	■			
Montana				■	■	■		■			■	■	■			
Nebraska		■				■		■	■	■		■	■			
Nevada						■	■									
New Hampshire				■	■	■	■		■	■		■	■	■		
New Jersey	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
New Mexico				■				■		■		■	■			
New York	■	■		■	■	■	■		■	■		■	■			■
North Carolina	■				■		■			■	■	■	■			■
North Dakota					■		■	■		■			■			
Ohio	■			■			■		■		■		■			■
Oklahoma		■		■	■		■			■		■	■			
Oregon	■			■	■	■	■	■	■	■	■		■			■
Pennsylvania	■			■	■				■		■	■	■	■		■
Rhode Island	■				■	■			■	■			■	■		
South Carolina				■			■		■	■	■	■	■			
South Dakota									■		■	■				
Tennessee	■			■	■					■			■			
Texas		■		■	■	■	■			■		■	■			
Utah					■		■	■	■		■		■			
Vermont				■	■	■	■		■		■	■	■	■		
Virginia					■	■			■	■	■	■	■		■	■
Washington	■	■		■	■	■		■		■			■		■	
West Virginia				■	■					■			■			
Wisconsin				■	■	■	■	■	■	■	■	■	■			■
Wyoming						■			■		■	■				

BUSINESS SUPPORT

TECHNOLOGY					INTERNATIONAL TRADE									
Research		Modernization			Export Promotion					Export Information				
R&D Centers	R&D Grants	Tech. Transfer	Info./ Network	Tech./Mgmt. Assist.	Counsel. Avg.#/mo.	For. Ofcs. #	Seminars #/year	Export Finance	Staff #	Trade Leads	Foreign Buyers	Agent/ Dist.ID	Export Directs.	
	■			■	0	5	16		19		■	■		**Alabama**
				■	50	2	4	■	14	■	■	■	■	Alaska
■				■	10	0	6		5		■	■		**Arizona**
	■	■		■	75	3	22	■	13	■	■	■	■	Arkansas
	■				15	3	15	■	35	■	■	■	■	**California**
■		■	■		80	2	16	■	7	■		■		Colorado
	■		■		45	2	24	■	13		■	■	■	**Connecticut**
■				■	12	2	7		5		■	■	■	Delaware
	■	■			38	4	70		30		■	■	■	**Florida**
■	■	■	■	■	120	4	8		10	■	■	■	■	Georgia
■				■	21	2	12		6	■	■	■	■	**Hawaii**
■				■	60	1	15		4	■	■	■	■	Idaho
	■	■	■	■	100	6	66	■	14	■	■	■	■	**Illinois**
	■	■	■	■	150	4	13	■	15	■	■	■	■	Indiana
■	■			■	40	3	18		12	■	■	■	■	**Iowa**
■	■	■	■	■	30	2	4		13	■	■	■	■	Kansas
■	■	■		■	0	2	3		11	■	■	■	■	**Kentucky**
					12	4	40	■	5		■	■		Louisiana
	■	■	■		85	0	12		7	■	■	■	■	**Maine**
■			■	■	60	2	25	■	18			■		Maryland
■	■				0	2	12		8	■	■	■	■	**Massachusetts**
■	■		■	■	200	3	15	■	25	■	■	■	■	Michigan
■	■	■		■	174	8	75	■	38	■	■	■	■	**Minnesota**
■		■		■	30	4	6		16	■	■	■	■	Mississippi
■	■	■	■		20	3	24		17	■	■	■	■	**Missouri**
	■	■		■	30	2	2		2			■	■	Montana
■				■	30	0	10		2	■	■		■	**Nebraska**
					0	1	3		2		■			Nevada
				■	0	0	0		1					**New Hampshire**
■	■	■		■	125	2	20	■	30	■	■	■	■	New Jersey
■		■			15	0	6		1	■	■			**New Mexico**
■	■	■	■	■	350	5	35	■	39		■	■	■	New York
■	■		■	■	60	4	15		20	■	■	■	■	**North Carolina**
■		■		■	10	1	6		1		■	■		North Dakota
■	■	■	■		200	4	24		38	■	■	■		**Ohio**
■	■	■	■		160	5	24		11	■	■	■	■	Oklahoma
	■	■	■	■	15	1	18		20		■			**Oregon**
■	■			■	50	3	1		15	■	■	■	■	Pennsylvania
■	■	■			20	2	4		6	■	■	■	■	**Rhode Island**
			■	■	60	2	12		12	■	■	■	■	South Carolina
	■				15	0	5		1	■	■	■	■	**South Dakota**
■		■		■	50	0	5	■	3	■	■	■		Tennessee
	■	■	■	■	30	1	23		7	■	■		■	**Texas**
■			■		45	3	15		11			■	■	Utah
	■	■			35	2	13		1	■	■		■	**Vermont**
■	■	■		■	124	2	17		14		■	■	■	Virginia
■		■		■	125	1	42		14	■	■	■	■	**Washington**
■				■	30	0	18		3	■	■		■	West Virginia
■	■	■		■	100	4	30	■	20		■	■	■	**Wisconsin**
					50	2	20		3			■	■	Wyoming

	SPECIAL BUSINESS SERVICES					DEVELOPMENT FINANCE										
						FINANCING TYPES / DIVERSITY					LEVERAGING INNOVATIONS					
	SBDCs	Incubators	One-Stop Permits	Empl. Ownshp.	Lab./Mgmt. Assist.	Seed Capital	Venture Capital	Product Devmnt.	Long-Term	Medium Risk	Levrgd. Invest.	Tax Credit	Loan Guars.	Second. Market	Linked Deposits	Sub-State Support
Alabama	■	■	■						■						■	
Alaska	■						■		■				■	■		
Arizona																
Arkansas	■	■	■			■			■	■	■		■			
California			■	■						■			■			■
Colorado	■		■						■					■		
Connecticut	■	■	■	■		■	■	■	■	■	■		■			
Delaware	■		■	■					■							
Florida	■					■										
Georgia	■	■							■							
Hawaii	■	■	■	■				■	■	■						
Idaho	■															
Illinois	■	■	■	■	■		■	■	■	■	■				■	
Indiana	■		■		■	■	■		■	■	■	■	■			■
Iowa	■	■	■		■		■	■	■	■	■	■	■			■
Kansas	■	■	■			■	■		■		■	■				■
Kentucky	■	■	■		■				■			■				
Louisiana	■					■	■		■	■	■	■	■			■
Maine	■		■				■		■	■		■	■	■	■	
Maryland	■	■		■					■	■			■			
Massachusetts	■			■			■	■	■	■	■	■	■			
Michigan	■	■	■	■	■	■		■	■	■	■		■			■
Minnesota	■		■		■		■		■	■	■		■	■		■
Mississippi	■	■	■				■		■	■		■	■			
Missouri	■	■	■			■			■			■	■		■	
Montana	■		■			■	■		■	■		■	■	■	■	
Nebraska	■		■			■	■		■							
Nevada	■								■	■						
New Hampshire	■	■		■					■				■			
New Jersey	■	■	■	■					■	■			■			
New Mexico						■	■		■	■	■					
New York	■	■	■	■	■		■		■	■			■			■
North Carolina	■	■	■					■		■						
North Dakota	■						■			■		■	■		■	
Ohio	■	■	■	■	■	■			■				■			■
Oklahoma	■	■				■	■	■	■	■		■	■	■	■	
Oregon	■		■	■		■			■							
Pennsylvania	■	■	■	■	■	■			■	■	■		■		■	■
Rhode Island	■		■						■	■			■			
South Carolina	■	■	■				■		■	■		■				
South Dakota	■		■						■							
Tennessee																
Texas	■		■													
Utah	■	■	■					■			■					
Vermont	■	■	■				■		■			■	■			■
Virginia	■	■	■						■				■			
Washington	■	■	■	■					■							
West Virginia	■		■	■	■		■		■	■		■			■	
Wisconsin	■		■	■	■	■			■							
Wyoming	■		■						■		■		■			■

DEV. FIN. cont.

DISADVANTAGED COMMUNITIES / INDIVIDUALS

REGULATORY INNOVATIONS				COMMUNITY AID		TRANSFER PAYMENT INVESTMENTS*				
Pension Invest.	BDCs/ BIDCOs	CRA Laws	Inter-State	Targeted Assistance	Tripartite Committees	Welfare/Work Score	Support Services Score	Benefit Adequacy Score	UI Work Transition Score	
						150	184	100	200	**Alabama**
						150	151	13	200	Alaska
						101	200	60	151	**Arizona**
			■	■		150	151	93	200	Arkansas
	■			■		61	102	5	102	**California**
■					■	101	151	55	200	Colorado
						12	53	22	200	**Connecticut**
	■					150	151	72	151	Delaware
				■		101	102	75	200	**Florida**
	■					101	135	76	200	Georgia
						150	151	34	200	**Hawaii**
			■		■	150	151	63	200	Idaho
			■		■	52	102	54	102	**Illinois**
			■			150	200	79	200	Indiana
■	■			■	■	12	151	42	200	**Iowa**
■	■					110	102	39	151	Kansas
						150	200	89	200	**Kentucky**
						150	184	95	200	Louisiana
			■			52	151	20	200	**Maine**
	■		■		■	12	53	62	200	Maryland
	■	■		■		52	53	23	151	**Massachusetts**
■	■		■	■	■	12	102	23	200	Michigan
			■	■		12	97	8	151	**Minnesota**
						101	184	79	200	Mississippi
■						150	151	82	151	**Missouri**
	■					150	102	40	200	Montana
	■			■		101	151	45	200	**Nebraska**
			■			150	53	84	200	Nevada
	■					150	102	42	200	**New Hampshire**
			■		■	61	86	45	151	New Jersey
						150	135	74	200	**New Mexico**
	■	■	■	■	■	101	4	24	200	New York
				■		110	151	76	200	**North Carolina**
■	■					150	200	37	200	North Dakota
■			■	■	■	110	135	68	200	**Ohio**
	■					52	151	39	151	Oklahoma
■						52	151	26	102	**Oregon**
■			■	■		52	135	43	151	Pennsylvania
■		■	■			150	102	17	200	**Rhode Island**
	■					150	200	72	200	South Carolina
			■			101	151	48	200	**South Dakota**
						101	53	82	200	Tennessee
■						101	151	94	151	**Texas**
		■	■			101	151	10	200	Utah
			■		■	101	102	3	151	**Vermont**
				■		61	102	65	200	Virginia
				■		61	151	20	53	**Washington**
		■				52	151	65	200	West Virginia
■	■		■	■		52	64	8	200	**Wisconsin**
■	■		■			150	184	60	200	Wyoming

*Please see the appropriate appendix for further explanation and data.

Policy Data Sources

Note: This year, data on state programs and policies collected from the secondary sources listed below were supplemented through a direct survey of the states. To conduct the survey, CfED attempted to establish a consistent contact in every state government, assigned through the Governor's office, to respond to the state policy survey that was constructed and distributed by CfED. Data gathered in this manner are generally current through December 1988. Altogether, 44 states chose to respond to the survey, with varying degrees of completeness. The states that did not reply are Arizona, Connecticut, Florida, Nevada, New Mexico and Oregon.

Subindex One: Tax and Fiscal Environment

Fiscal Stability and Balanced Revenue Sources

Assessment of fiscal stability and balance of revenue sources, by state. Score.
Source: The Corporation for Enterprise Development, "The Tax and Fiscal Environment Index," research report for the Economic Climate Project, December 1988.
Please see *Appendix D* for complete text of report.

Tax Fairness

Assessment of tax fairness, by state. Score.
Source: The Corporation for Enterprise Development, "The Tax and Fiscal Policy Index," research report for the Economic Climate Project, December 1988.
Please see *Appendix D* for complete text of report.

Fiscal Equalization

Assessment of fiscal equalization, by state. Score.
Source: The Corporation for Enterprise Development, "The Tax and Fiscal Policy Index," research report for the Economic Climate Project, December 1988.
Please see *Appendix D* for complete text of report.

Final Score

Tax and fiscal environment, by state. Score.
Source: The Corporation for Enterprise Development, "The Tax and Fiscal Policy Index," research report for the Economic Climate Project, December 1988.
Please see *Appendix D* for complete text of report.

Subindex Two: Education

Support for Education

- *Pupil Spending, K-12*
  Current expenditures for public elementary and secondary schools, per pupil (average daily attendance) as percent of per capita income, 1987-1988.
  Source: State Policy Research, Inc., "Table G-15," *State Policy Data Book '88* (Alexandria, VA: State Policy Research, Inc., 1988).

- *Pupil Spending, Higher Education*
  State support of higher education per pupil (full-time equivalent) as percent of per capita income, 1987-1988.
  Source: State Policy Research, Inc., "Table G-43," *State Policy Data Book '88* (Alexandria, VA: State Policy Research, Inc., 1988).

- *Average Teacher Salary*
  Average teacher salary, 1987-88. Dollars.
  Source: American Federation of Teachers, Department of Research, "Survey and Analysis of Salary Trends," Washington, DC, 1988.

- *Beginning Teacher Salary*
  Beginning teacher salary, 1987-88. Dollars.
  Source: American Federation of Teachers, Department of Research, "Survey and Analysis of Salary Trends," Washington, DC, 1988.

- *Change in Teacher Salary*
  Percent change in average teacher salary, from school year 1980-81 to school year 1987-88.
  Source: American Federation of Teachers, Department of Research, "Survey and Analysis of Salary Trends," Washington, DC, 1988.

Reform of Education

School Accountability Policies

- *Comprehensive School Performance Indicators*
  States that have a comprehensive system of indicators for schools, FY 1988.
  Source: U.S. Department of Education, Office of Educational Research and Improvement, *Creating Responsible and Responsive Accountability Systems* (Washington, DC: U.S. Department of Education), September 1988.

- *School Incentives*
  States in which school performance triggers rewards, sanctions or other consequences, FY 1988.
  Source: U.S. Department of Education, Office of Educational Research and Improvement, *Creating Responsible and Responsive Accountability Systems* (Washington, DC: U.S. Department of Education), September 1988.

Teacher Policies

- *Teacher Involvement*
  Compiled score of percentage of teachers who indicate they are involved in decisions across ten dimensions of education decision-making: choosing texts, shaping curriculum, setting student behavior standards, deciding on student tracking to special classes, designing staff development programs, setting promotional/retention policy, deciding school budgets, evaluating teacher performance, selecting new teachers and selecting new administrators, 1987. Score.
  Source: Carnegie Foundation for the Advancement of Teaching, *Report Card on School Reform: The Teachers Speak* (Princeton: Carnegie Foundation for the Advancement of Teaching), 1988. Calculations reported in *State Policy Reports*, September 1988.

- *Alternative Certification*
  States that offer alternative routes to certification, FY 1988.
  Source: Council of Chief State School Officers, *Education in the States: State Education Indicators 1987* (Washington, DC: Council of Chief State School Officers, 1987).

- *Teacher Incentives*
  States that have fully implemented statewide incentive programs such as career ladders, teacher mentors, and incentive pay, FY 1988.
  Source: Southern Regional Education Board, "Incentive Programs — 1988," unpublished table, Atlanta, GA, 1988.

- *Beginning Teacher Mentoring*
  States that sponsor activity that offers evaluation and/or support for employed beginning teachers, FY 1988.
  Source: American Association of Colleges for Teacher Education, *Teacher Education Policy in the States* (Washington, DC: American Association of Colleges for Teacher Education, 1988).

Student Policies

- *High School Math and Science Requirements*
  Number of math and science course units required for high school graduation.
  Source: Council of Chief State School Officers, *Education in the States: State Education Indicators 1987* (Washington, DC: Council of Chief State School Officers, 1987).

- *High School Competency Test Requirement*
  States that require a competency test for high school graduation, FY 1988.
  Source: Council of Chief State School Officers, *Education in the States: State Education Indicators 1987* (Washington, DC: Council of Chief State School Officers, 1987).

- *Early Childhood Education Programs*
  States with early childhood (pre-kindergarten) education programs, not including those for handicapped or Chapter 1 youngsters, FY 1988.
  Source: National Governors' Association, *Results in Education, 1988* (Washington, DC: National Governors' Association, 1988).

Subindex Three: Infrastructure and Amenities

Public Capital Budgeting

- *Facility Inventory*
  States that maintain a central unified inventory of public facilities, FY 1988.
  Source: National Conference of State Legislatures, *Capital Budgeting and Finance* (Denver: National Conference of State Legislatures, November 1987).

- *Needs Assessments*
  States that provide regular assessments of facility conditions and investment needs, FY 1988.
  Source: National Conference of State Legislatures, *Capital Budgeting and Finance* (Denver: National Conference of State Legislatures, November 1987).

- *Capital Plans*
  States that develop long-range capital plans to guide annual capital budget requests, FY 1988.
  Source: National Conference of State Legislatures, *Capital Budgeting and Finance* (Denver: National Conference of State Legislatures, November 1987).

Housing

Affordability

- *New Construction Assistance*
  States that use own-source funds to finance new housing construction, FY 1988.
  Source: Council of State Community Affairs Agencies, *State Housing Initiatives*, (Washington, DC: Council of State Community Affairs Agencies, 1988); Council of State Housing Agencies, *Housing Initiatives of State Housing Finance Agencies*, (Washington, DC: Council of State Housing Agencies, 1987).

- *Rehabilitation Assistance*
  States that use own-source funds to provide financial assistance for housing rehabilitation, FY 1988.
  Source: Council of State Community Affairs Agencies, *State Housing Initiatives*, (Washington, DC: Council of State Community Affairs Agencies, 1988); Council of State Housing Agencies, *Housing Initiatives of State Housing Finance Agencies*, (Washington, DC: Council of State Housing Agencies, 1987).

- *Pre-Development and Development Costs Assistance*
  States that use own-source funds for financial assistance for land acquisition and/or development, FY 1988.
  Source: Council of State Community Affairs Agencies, *State Housing Initiatives*, (Washington, DC: Council of State Community Affairs Agencies, 1988); Council of State Housing Agencies, *Housing Initiatives of State Housing Finance Agencies*, (Washington, DC: Council of State Housing Agencies, 1987).

Direct Assistance

- *Home Ownership*
  States that use own-source funds to provide financial assistance for home ownership, FY 1988.
  Source: Council of State Community Affairs Agencies, *State Housing Initiatives*, (Washington, DC: Council of State Community Affairs Agencies, 1988); Council of State Housing Agencies, *Housing Initiatives of State Housing Finance Agencies*, (Washington, DC: Council of State Housing Agencies, 1987).

- *Tenant Assistance*
  States that use own-source funds for financial assistance to tenants, FY 1988.
  Source: Council of State Community Affairs Agencies, *State Housing Initiatives*, (Washington, DC: Council of State Community Affairs Agencies, 1988); Council of State Housing Agencies, *Housing Initiatives of State Housing Finance Agencies*, (Washington, DC: Council of State Housing Agencies, 1987).

Special Housing Needs

- *Homeless*
  States that use own-source funds to provide shelters and prevent homelessness, FY 1988.
  Source: Council of State Community Affairs Agencies, *State Housing Initiatives*, (Washington, DC: Council of State Community Affairs Agencies, 1988); Council of State Housing Agencies, *Housing Initiatives of State Housing Finance Agencies*, (Washington, DC: Council of State Housing Agencies, 1987); National Conference of State Legislatures, *Shaping a National Housing Policy*, (Denver: National Conference of State Legislatures, 1988).

- *Elderly*
  States that use own-source funds for construction, rehabilitation, and rent subsidies for housing and special services for elderly residents, FY 1988.
  Source: Council of State Community Affairs Agencies, *State Housing Initiatives*, (Washington, DC: Council of State Community Affairs Agencies, 1988); Council of State Housing Agencies, *Housing Initiatives of State Housing Finance Agencies*, (Washington, DC: Council of State Housing Agencies, 1987); Council of State Housing Agencies, *State Initiatives in Elderly Housing*, (Washington, DC: Council of State Housing Agencies, 1987).

- *Housing Trust Funds*
  States with dedicated funds for housing construction and other selected housing programs, FY 1988.
  Source: Housing Trust Fund Project, staff interview, Oakland, CA, 1988.

Environment

Solid Waste Management

- *"Bottle Bills"*
  States with legislation intended to promote recycling of glass, metals and plastic by placing a deposit on beverage containers redeemable upon return of the container, FY 1988.
  Source: Environmental Defense Fund, *Coming Full Circle* (New York: Environmental Defense Fund, 1988).

- *Mandatory Recycling*
  States with mandatory source separation and established recovery rates of recyclable material from the solid waste stream, FY 1988.
  Source: Environmental Defense Fund, *Coming Full Circle* (New York: Environmental Defense Fund, 1988).

- *Government Procurement of Recycled Paper*
  States with laws to promote the purchase of recycled paper and other products by means of set-aside contracts or price preferences favoring products incorporating recycled materials, FY 1988.
  Source: American Paper Institute, "State and Local Procurement of Recycled Products," unpublished table, September 20, 1988.

Hazardous Waste Management

- *Waste Minimization*
  States with sufficiently funded and staffed programs to reduce hazardous waste production and encourage recycling of waste products, FY 1988.
  Source: Roger Schecter (North Carolina Department of Natural Resources), "Reduction of Hazardous Wastes: Innovative Opportunities for Industry and Government," unpublished paper presented at Waste Minimization Conference, Government Institutes, Inc., Washington, DC, February 19-20, 1987.

- *Waste Regulations*
  States with regulations on hazardous waste management and disposal that are more comprehensive than those mandated by federal law, 1983.
  Source: Office of Technology Assessment, *Technologies and Management Strategies for Hazardous Waste Control* (Washington, DC: Government Printing Office, 1983).

- *Property Transfer Law*
  States with laws requiring owners selling a property to certify the absence of hazardous materials on the property, FY 1988.
  Source: Council of State Governments, States Information Center, "Industrial Property Transfer Laws," *CSG Backgrounder*, March 1988.

- *State Superfunds*
  States authorized by law to assess hazardous waste sites, initiate remedial clean-up actions and/or enforce assessments on responsible parties, FY 1988.
  Source: Fund for Renewable Energy and the Environment, *The State of the States, 1987* (Washington, DC: Fund for Renewable Energy and the Environment, 1987).

- *"Right-to-Know" Laws*
  States with community and workplace "right-to-know" laws concerning hazardous materials, FY 1988.
  Source: Thompson Publishing Group, Inc., *Community Right-to-Know Manual* (Washington, DC: Thompson Publishing Group, Inc., 1988).

Air Pollution Control

- *Toxic Air Pollution Control*
  States that have implemented comprehensive programs to regulate and reduce emissions of toxic pollutants into the air, FY 1988.
  Source: State and Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Control Officials, *Toxic Air Pollutants: State and Local Regulatory Strategies* (Washington, DC: STAPPA and ALAPCO, 1984).

- *Air Permits and Emissions Fees*
  States with air permits and emissions fees, FY 1988.
  Source: State and Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Control Officials, "Air Permit and Emission Fees: Results of a Survey," April 1987.

- *Indoor Air Pollution Control*
  States with comprehensive restrictions on indoor air pollution caused by tobacco, FY 1988.
  Source: Fund for Renewable Energy and the Environment, *The State of the States, 1988* (Washington, DC: Fund for Renewable Energy and the Environment, 1988).

Water Pollution Control

- *Drinking Water Testing*
  States where testing for contaminants in the drinking water is more comprehensive than mandated by federal regulations, FY 1988.
  Source: Center for Study of Responsive Law, *Troubled Waters on Tap* (Washington, DC: Center for Study of Responsive Law, 1988).

- *Ban on Lead in Drinking Water*
  States with a ban on the use of lead products in drinking water systems, FY 1988.
  Source: Fund for Renewable Energy and the Environment, *The State of the States, 1988* (Washington, DC: Fund for Renewable Energy and the Environment, 1988).

- *Surface Water Protection*
  States with comprehensive non-point source surface water protection programs, FY 1988.
  Source: Fund for Renewable Energy and the Environment, *The State of the States, 1988* (Washington, DC: Fund for Renewable Energy and the Environment, 1988).

- *Groundwater Protection*
  States with numeric standards established for specific groundwater contaminants, FY 1988.
  Source: Eleanor Chelimsky, "Fighting Groundwater Contamination: State Activities to Date and the Need for More Information from EPA," U.S. Congress, Senate, Committee on Environment and Public Works, *Groundwater Protection: Hearings on S.20, S.1105, and H.R. 791.* 100th Congress, 2nd session, May 17, 1988.

Farmland Protection

- *Right-to-Farm Laws*
  States with laws to protect farmers from certain legal actions against normally accepted farming practices, FY 1988.
  Source: National Association of State Departments of Agriculture, *Farmland Notes*, January 1987.

- *Development Rights — Purchase*
  States that may purchase the development rights of farmland by paying the owner the difference between the market value and farm-use value of the land, FY 1988.
  Source: National Association of State Departments of Agriculture, *Farmland Notes*, January 1987.

- *Development Rights — Transfer*
  States that allow qualifying developers to increase development density in designated receiving areas if they purchase development rights from farmers whose property is in other designated sending areas to protect their use of land for farming, FY 1988.
  Source: National Association of State Departments of Agriculture, *Farmland Notes*, January 1987.

- *Agriculture District Ordinances*
  States that allow farmers to organize land into legally recognized geographic areas restricted to agricultural use, FY 1988.
  Source: National Farmland Trust, staff interview, 1987.

Subindex Four: Business Support

Technology

Stimulating Research

- *Research and Development Centers*
  States that finance research and development centers, FY 1988.
  Source: Minnesota Office of Science and Technology, *State Technology Programs in the U.S.* (St. Paul, MN: Minnesota Office of Science and Technology), July 1988.

- *Research Grants*
  States with research and development grants, FY 1988.
  Source: Minnesota Office of Science and Technology, *State Technology Programs in the U.S.* (St. Paul, MN: Minnesota Office of Science and Technology), July 1988.

Modernizing Companies

- *Technology Transfer*
  States with programs that facilitate the transmission of new technologies from the laboratory to the private sector, FY 1988.
  Source: Minnesota Office of Science and Technology, *State Technology Programs in the U.S.* (St. Paul, MN: Minnesota Office of Science and Technology), July 1988.

- *Information/Networking*
  States with programs that serve as a clearinghouse to provide access to both technical and business information to state firms and that develop cooperative programs to solve common business and technology problems, FY 1988.
  Source: Minnesota Office of Science and Technology, *State Technology Programs in the U.S.* (St. Paul, MN: Minnesota Office of Science and Technology), July 1988.

- *Technical/Management Assistance*
  States with programs to assist technology-based companies on management issues and on the use of new technologies, FY 1988.
  Source: Minnesota Office of Science and Technology, *State Technology Programs in the U.S.* (St. Paul, MN: Minnesota Office of Science and Technology), July 1988.

International Trade

Export Promotion

- *Counseling Services*
  Average number of counseling sessions per month provided to companies on how to export, adjusted for population, FY 1988.
  Source: National Association of State Development Agencies, *State Export Program Database*, (Washington, DC: National Association of State Development Agencies, July 1988).

- *Foreign Trade Offices*
  Number of foreign offices in operation, FY 1988.
  Source: National Association of State Development Agencies, *State Export Program Database*, (Washington, DC: National Association of State Development Agencies, July 1988).

- *Trade Seminars*
  Number of seminars on exporting to businesses, per year, adjusted for population, FY 1988.
  Source: National Association of State Development Agencies, *State Export Program Database*, (Washington, DC: National Association of State Development Agencies, July 1988).

- *Export Finance*
  States that provide direct credit to finance exporters or provide loan guarantees, FY 1988.
  Source: National Association of State Development Agencies, *State Export Program Database*, (Washington, DC: National Association of State Development Agencies, July 1988).

- *Trade Staff*
  Number of staff working on international trade programs, adjusted for population, FY 1988.
  Source: National Association of State Development Agencies, *State Export Program Database*, (Washington, DC: National Association of State Development Agencies, July 1988).

Export Information

- *Trade Leads*
  States that develop overseas sales leads and deliver them to in-state companies, FY 1988.
  Source: National Association of State Development Agencies, *State Export Program Database*, (Washington, DC: National Association of State Development Agencies, July 1988).

- *Foreign Buyers*
  States that match local companies with foreign firms visiting for an international industry show or trade fair, FY 1988.
  Source: National Association of State Development Agencies, *State Export Program Database*, (Washington, DC: National Association of State Development Agencies, July 1988).

- *Overseas Agent/Distributor Identification*
  States that assist companies by identifying overseas agents and distributors for their products, FY 1988.
  Source: National Association of State Development Agencies, *State Export Program Database*, (Washington, DC: National Association of State Development Agencies, July 1988).

- *Export Product Directories*
  States that publish descriptions of products available from in-state companies for export, FY 1988.
  Source: National Association of State Development Agencies, *State Export Program Database*, (Washington, DC: National Association of State Development Agencies, July 1988).

Special Business Services

- *Small Business Development Centers*
  States with small business development centers, FY 1988.
  Source: U.S. Small Business Administration, staff interview, 1986.

- *Small Business Incubators*
  States that fund incubator facilities that provide below-market rates for office and lab space for start-up companies and offer shared support services, FY 1988.
  Source: Minnesota Office of Science and Technology, *State Technology Programs in the U.S.* (St. Paul, MN: Minnesota Office of Science and Technology), July 1988; Gary R. Bettger, "Overview of State-Supported Incubator Programs: A 1988 Update," *State Legislative Report*, May 1988.

- *One-Stop Permit Shops*
  States with one-stop permitting systems, FY 1988.
  Source: U.S. Small Business Administration, Office of Advocacy, *Directory of State Business Issues: Looking Toward the Future* (Washington, DC: Government Printing Office, October 1985); and U.S. Small Business Administration, Office of Advocacy, "State Small Business Activities," updated, unpublished table, 1986.

- *Employee Ownership Assistance*
  States with employee ownership programs, FY 1988.
  Source: National Center for Employee Ownership, staff interview, 1988.

- *Labor-Management Assistance*
  States with labor-management committee programs, FY 1988.
  Source: National Governors' Association, *Making America Work: Follow-up Report 1988* (Washington, DC: National Governors' Association, 1988).

Subindex Five: Development Finance

Note: Because they are repeated so frequently, the following sources are referred to in this subindex's Data Source listing according to the following reference letters.

a. U.S. Small Business Administration, *Capital Formation in the States* (Washington, DC: U.S. Government Printing Office, January 1988).

b. Northeast-Midwest Institute, *The Guide to State and Federal Resources for Economic Development* (Washington, DC: Northeast-Midwest Institute, 1988).

c. Governor's Commission on the Economic Future of Minnesota, *The Report of the Governor's Commission on the Economic Future of Minnesota* (St. Paul: Governor's Commission on the Economic Future of Minnesota, 1987).

d. U.S. Small Business Administration, *The Small Business Advocate, Special Edition* (Washington, DC: U.S. Government Printing Office, 1988).

e. Gary Bettger, "State Venture Capital Initiatives," *State Legislative Report, Volume II, No. 2* (Denver: National Conference of State Legislatures, February, 1986).

f. "Interstate Statutes with Deposit Restrictions and/or Reinvestment Requirements," *Banking Expansion Reporter*, Golembe Associates, June 1986.

g. U.S. Small Business Administration, *The States and Small Business: Programs and Activities* (Washington, DC: U.S. Government Printing Office, November 1986).

h. U.S. Small Business Administration, *State Activities in Capital Formation: Venture Capital, Working Capital, and Public Pension Fund Investments* (Washington, DC: U.S. Government Printing Office, June 1985).

i. National Association of State Development Agencies, *Analysis of Innovative State Economic Development Financing Programs* (Washington, DC: National Association of State Development Agencies, August 1985).

j. National Association of State Development Agencies, *Directory of Incentives for Business Investment and Development in the United States* (Washington, DC: The Urban Institute Press, 1986).

Financing Types and Diversity

- *Seed Capital Funds*
  States that provide pre-start-up capital to new ventures, FY 1988.
  Source: a, b, c, g, h.

- *Venture Capital Funds*
  States with publicly-capitalized venture capital corporations, FY 1988.
  Source: a, b, c, e, g, h, i.

- *Product Development Finance*
  States that provide royalty financing for specific product or production processes, FY 1988.
  Source: a, b, c, g, h.

- *Long-Term Finance*
  States that provide debt financing for plant and equipment often at fixed interest rates, FY 1988.
  Source: b, d, g, i.

- *Medium-Risk Intermediate/Long-Term Finance*
  States that provide intermediate/long term debt on an unsecured or subordinated basis, or secured by "soft" assets such as inventories and accounts receivable, FY 1988.
  Source: b, g.

Leveraging Innovations

- *Leveraged Public Investments*
  States that directly invest in privately managed "public benefit" financial institutions that are designed to leverage private investment, FY 1988.
  Source: b, e, g, h, i.

- *Tax Credit Finance*
  States that provide for tax credits as a mechanism to create new financial institutions, such as a venture capital corporation, FY 1988.
  Source: b, e, h.

- *Loan Guarantees*
  States with loan guarantee programs, FY 1988.
  Source: b, d, g, h, i.

- *Secondary Market Mechanisms*
  States that purchase loans originated by financial institutions, such as SBA-guaranteed loans, FY 1988.
  Source: b, j, i.

- *Linked Deposits*
  States that tie state deposits to a bank based on the willingness of a bank to make loans to certain types of targeted firms, FY 1988.
  Source: a, b, h.

- *Sub-State Development Finance Support*
  States that support public or quasi-public institutions that operate on a regional or local level, FY 1988.
  Source: b, j.

Regulatory Innovations

- *Pension Fund Investment*
  States which invest public pension funds in venture capital, FY 1988.
  Source: a, e, h, i.

- *BDCs and BIDCOs*
  States that allow the creation of private non-depository financial institutions that would not be permitted under general state banking regulation, FY 1988.
  Source: h, j.

- *Community Reinvestment Acts*
  States with community reinvestment acts, FY 1988.
  Source: Banking Expansion Reporter, staff interview, December 1988.

- *Interstate Banking*
  States that permit interstate banking with community protections, FY 1988.
  Source: f.

Subindex Six: Disadvantaged Communities and Individuals

Aid to Distressed Communities

- *Targeted Assistance*
  States with community-based development programs, FY 1988.
  Source: National Congress for Community Economic Development, staff interview, Washington, DC, 1986.

- *Tripartite Committees*
  States that utilize tripartite committees to design services that address the particular needs and circumstances of a plant closing, workforce reduction or other situations of industrial change, FY 1988.
  Source: National Governors' Association, *Making America Work* (Washington, DC: National Governors' Association, 1988).

Transfer Payment Investment

- *Welfare-to-Work Programs*
  Assessment of current state efforts in welfare-to-work programs, 1988. Score.
  Source: The Corporation for Enterprise Development, "Transfer Payment Investment Index," research report for the Economic Climate Project, January 1989.
  Please see *Appendix E* for complete text of report.

- *Transitional Support Services*
  Assessment of current state efforts to provide child care and health services to the economically disadvantaged, 1988.
  Source: The Corporation for Enterprise Development, "Transfer Payment Investment Index," research report for the Economic Climate Project, January 1989.
  Please see *Appendix E* for complete text of report.

- *Benefit Level Adequacy*
  AFDC and Medicaid benefit levels, 1988. Score.
  Source: The Corporation for Enterprise Development, "Transfer Payment Investment Index," research report for the Economic Climate Project, January 1989.
  Please see *Appendix E* for complete text of report.

- *Unemployment Insurance Work Transition Programs*
  Assessment of current state efforts to use UI to assist workers to become self-sufficient, 1988.
  Source: The Corporation for Enterprise Development, "Transfer Payment Investment Index," research report for the Economic Climate Project, January 1989.
  Please see *Appendix E* for complete text of report.

Endnotes

1. For more background on business climate and taxes, see Karl Seidman, *The Role of Taxation in State Business Climate* (Washington, DC: The Corporation for Enterprise Development, 1987); and *Appendix D* of this *Report Card* for the 1989 *Tax and Fiscal Environment Index.*

2. For a discussion of the merits of a balanced revenue system, see Robert Kleine and John Shannon, "Characteristics of a Balanced and Moderate State-Local Revenue System," in Steve Gold, *Reforming State Tax Systems* (Washington, DC: National Conference of State Legislatures, 1986). For a discussion of the limitations of this approach, see Helen F. Ladd and Dana R. Weist, "State and Local Tax Systems: Balance Among Taxes vs. Balance Among Public Goals," presentation at the Tax Policy Roundtable of Lincoln Institute of Land Policy, May 1987.

3. See, for example, U.S. Department of Education, *A Nation at Risk* (Washington, DC: Government Printing Office, 1986); and *The Entrepreneurial Economy Review*, December/January, 1989.

4. See Lawrence Litvak and Belden Daniels, *Innovations in Development Finance* (Washington, DC: Council of State Planning Agencies, 1979); Lawrence Litvak and Michael Barker, *Pension Funds and Economic Development* (Washington, DC: The Gallatin Institute, 1983); Council for Community Development, Inc., *Indiana's Financial Markets and Economic Development: A Fresh Approach* (Cambridge, MA: Council for Community Development, Inc., January 1984) and *Maine Small Business Finance* (Cambridge, MA: Council for Community Development, Inc., January 1983); The Corporation for Enterprise Development, *Capital Markets in South Carolina: New Directions for Private and Public Actors* (Washington, DC: The Corporation for Enterprise Development, February 1985); and Peter Kwass and Beth Siegel, *Profile of Michigan's Commercial Banking Industry: Implications for Small Business Capital Availability* (Washington, DC: The Corporation for Enterprise Development, January 1986).

5. We do not believe that "coercive" work programs, in which recipients are required to "work off" their benefits, are the most desirable, in as the bulk of reliable data suggests that voluntary programs are cheaper, more effective and better address the true barriers to self-sufficiency. See Robert E. Friedman, *The Safety Net as Ladder: Transfer Payments and Economic Development* (Washington, DC: Council of State Policy and Planning Agencies, 1988).

The State Report Cards

Alabama

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	D	D	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
B	C	B	B

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
D	C	D	F	D

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	D	C	C	D	F	F

Alaska

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
D	C	B	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	B	F	B

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
A	C	D	C	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
D	C	C	D	D	C	D

Arizona

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
A	C	B	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
D	A	F	B

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	B	B	C	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	D	D	F	F	D	F

Arkansas

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	F	D	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	D	A	C

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
D	F	F	F	F

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	D	D	B	B	C	C

California

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
B	B	C	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
D	A	C	B

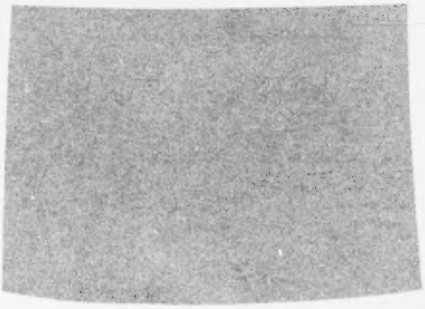
CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	A	A	A	A

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
A	A	A	C	C	A	A

Colorado



PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
D	C	D	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
D	B	D	C

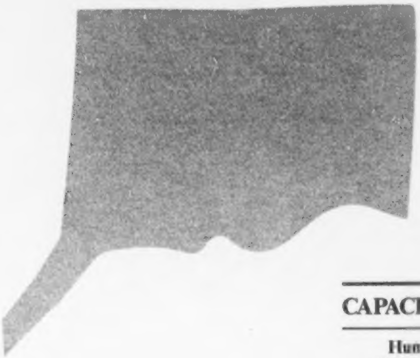
CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
A	A	C	A	A

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	C	C	C	C	B	C

Connecticut



PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
B	A	A	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
A	C	A	A

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
B	A	A	C	A

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
D	A	B	C	C	B	B

Delaware

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
A	A	A	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
A	A	B	A

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	A	A	A	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	A	B	C	D	D	C

Florida

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
A	C	C	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
D	A	D	B

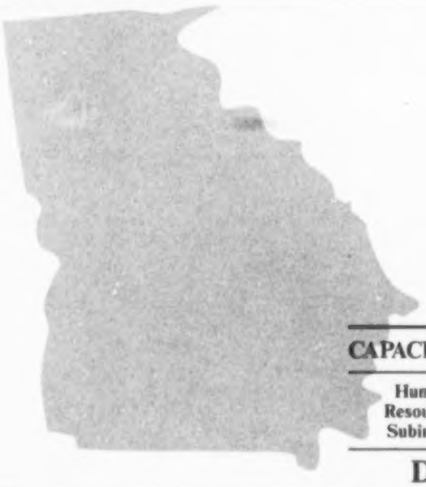
CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
F	D	B	C	D

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
D	A	B	D	F	B	C

Georgia



PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
B	B	F	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
B	A	D	A

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
D	D	C	B	D

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
A	B	D	B	D	D	C

Hawaii

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
A	A	A	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
F	B	C	D

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
B	C	B	B	B

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	B	B	C	D	C	C

Idaho

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
D	D	C	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	C	B	C

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
A	C	C	D	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
A	F	F	D	D	C	D

Illinois

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
D	B	C	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	D	C	D

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	B	A	B	B

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
D	D	A	A	B	A	B

Indiana

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
D	B	B	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
A	D	D	B

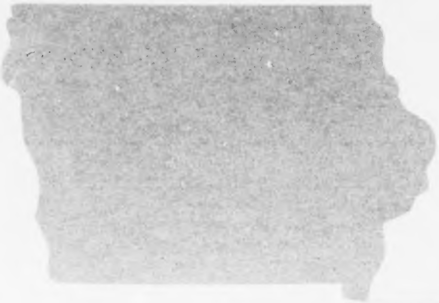
CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
D	C	C	D	D

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
B	C	D	A	A	F	C

Iowa



PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
D	B	D	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	F	D	F

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	C	C	D	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	C	C	B	A	B	B

Kansas

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
B	C	C	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	C	A	C

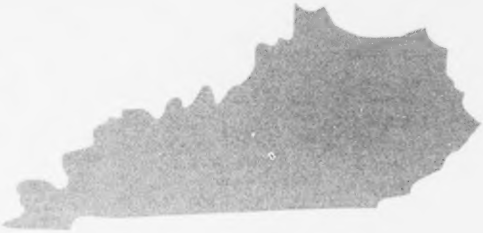
CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
B	C	C	D	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	D	C	B	A	C	B

Kentucky



PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
F	D	D	F

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	C	C	C

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
F	F	D	D	F

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
B	C	C	B	D	F	C

Louisiana

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
F	F	F	F

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
D	C	F	D

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
F	D	D	D	F

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
D	C	C	F	B	F	D

Maine

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
A	B	B	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
A	C	A	A

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	D	D	C	D

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
A	C	B	C	A	C	A

Maryland

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
B	A	A	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	A	B	A

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
B	A	B	A	A

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
A	C	A	C	C	A	A

Massachusetts

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
B	A	A	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
A	B	B	A

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
B	A	A	C	A

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
A	B	A	D	A	A	A

Michigan

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
D	C	C	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
A	D	D	C

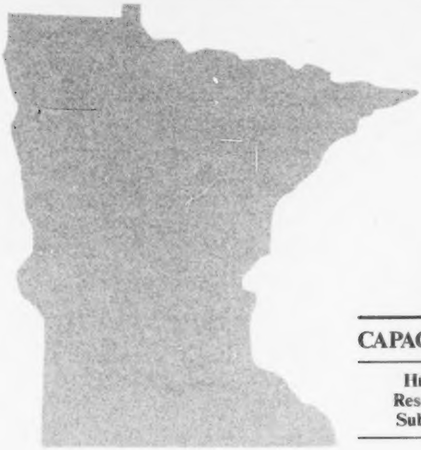
CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	B	C	C	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
B	B	B	A	A	A	A

Minnesota



PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	B	B	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
B	C	B	C

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
A	B	A	A	A

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
A	B	A	A	A	A	A

Mississippi

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
D	F	D	F

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
D	C	C	D

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
F	F	F	F	F

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	B	C	B	C	D	C

Missouri

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	C	C	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
F	D	C	F

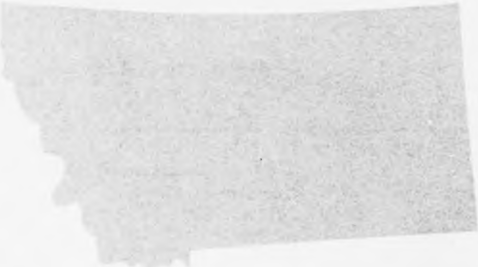
CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	C	C	C	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	D	B	A	B	D	C

Montana



PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
F	F	B	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	C	A	C

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
A	D	D	C	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
F	D	D	D	A	C	D

Nebraska

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	D	C	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
F	D	C	F

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
A	D	D	A	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
D	F	D	D	C	B	D

Nevada

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
A	B	B	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
B	A	D	B

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
B	C	C	D	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
D	D	F	F	C	D	F

New Hampshire

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
A	A	A	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
B	A	C	A

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
B	C	B	F	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
F	F	C	D	C	C	D

New Jersey

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
B	A	A	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
B	B	B	A

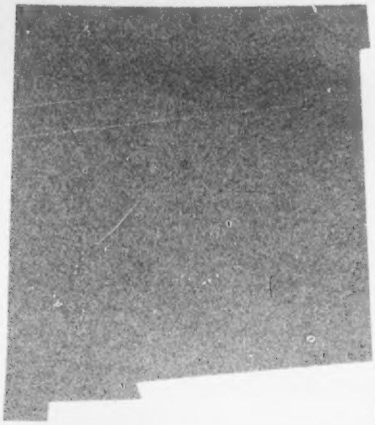
CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	B	A	C	B

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	A	A	A	C	B	A

New Mexico



PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	D	F	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
D	B	A	C

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	A	F	C	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	B	C	F	C	D	D

New York

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	B	C	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
B	D	A	C

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
D	A	A	B	B

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
A	A	A	A	B	A	A

North Carolina

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
A	C	C	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
B	C	B	B

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
D	C	C	C	D

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
B	B	C	A	D	C	B

North Dakota

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	C	C	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	F	C	D

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
B	D	C	C	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
A	F	F	D	B	D	D

Ohio

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
D	B	A	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
A	D	D	C

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	B	C	A	B

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
B	C	C	A	B	C	B

Oklahoma

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
D	F	F	F

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
F	C	D	D

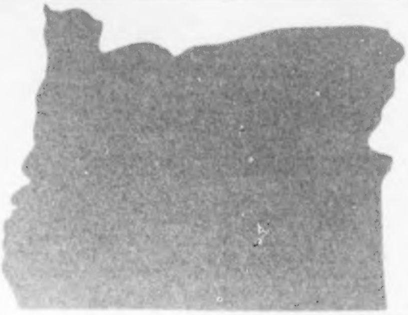
CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	C	D	D	D

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
B	C	C	B	A	B	B

Oregon



PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
B	C	C	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
D	C	C	D

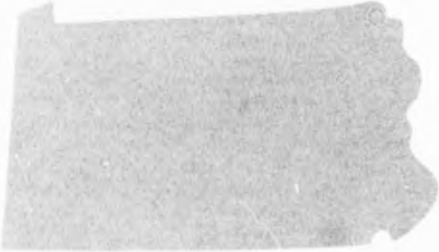
CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	C	B	A	B

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
D	C	A	C	C	B	C

Pennsylvania



PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	A	C	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
B	D	D	D

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	B	A	B	A

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	A	B	B	A	B	A

Rhode Island

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
A	A	A	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	D	A	C

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
D	A	A	D	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
B	C	A	C	C	C	B

South Carolina

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
B	D	C	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
A	C	A	A

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
D	D	F	B	D

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
A	A	D	C	C	F	C

South Dakota

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	D	D	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
F	C	A	F

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
B	F	C	C	D

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
F	F	F	D	D	C	F

Tennessee

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	C	D	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	B	C	B

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
F	D	C	D	D

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
F	C	C	D	F	C	D

Texas

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	C	D	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
D	A	C	C

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
D	B	A	A	B

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
F	A	D	C	D	D	D

Utah

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	D	B	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
D	A	C	C

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
B	A	D	B	B

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
B	D	D	C	C	C	C

Vermont

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
A	C	A	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
A	B	B	A

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
A	C	B	B	A

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
B	B	B	C	B	A	B

Virginia

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
B	A	D	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	B	B	B

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
C	C	B	C	B

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	A	B	B	D	B	B

Washington

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	C	B	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	B	C	C

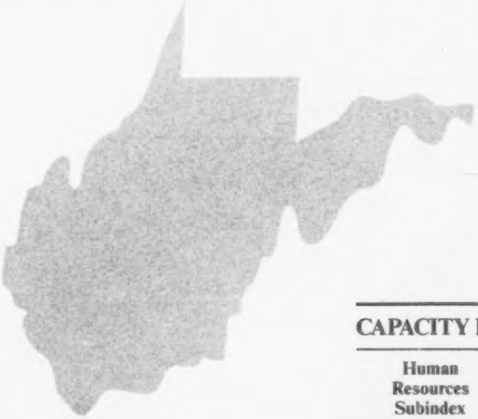
CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
A	A	B	A	A

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
D	B	A	B	F	A	B

West Virginia



PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
F	D	F	F

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
A	F	F	D

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
D	D	F	F	F

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
C	D	D	C	B	C	C

Wisconsin

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
C	B	C	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
B	F	C	D

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
A	B	C	B	B

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
B	C	C	A	C	A	A

Wyoming

PERFORMANCE INDEX

Employment Subindex	Earnings/ Job Quality Subindex	Equity Subindex	1989 INDEX GRADE
F	D	B	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1989 INDEX GRADE
C	D	F	F

CAPACITY INDEX

Human Resources Subindex	Technological Resources Subindex	Financial Resources Subindex	Infra./Amenities Resources Subindex	1989 INDEX GRADE
A	D	D	B	C

POLICY INDEX

Tax & Fiscal Environment Subindex	Education Subindex	Infrastructure and Amenities Subindex	Business Support Subindex	Development Finance Subindex	Disadv. Indivs./ Communities Subindex	1989 INDEX GRADE
D	C	D	F	B	D	D

Appendix A: Notes on Methodology and the Development Model

The Development Model

This is the third year we have presented our assessment — in the form of a *Development Report Card* — of how supportive each state's economic environment is for business development. During the course of the year, state economies have continued to evolve. But the heart of the *Report Card* remains its model of the development process. Stated simply, our understanding of the development process follows.

- What we seek from an economy is long-term, widely-shared increases in our standard of living — tangible and intangible.
- The economy's performance largely results from the vitality of the business community, which organizes and manages most economic activity. Business vitality is rooted in competitive edge, diversity, market strength and long investment horizons, as well as the ability of new firms to start up and older ones to innovate and adapt.
- Business vitality springs from effectively using and augmenting the building blocks of economic development: human skills, finance, technology, natural resources, and physical, social and cultural amenities. We call these development ingredients a state's capacity.
- Government policies can foster or undermine performance, capacity and business vitality — thereby leading to a state's stronger or weaker economic performance.

This model incorporates the findings from an extensive literature review of the dynamics of development and the obstacles to economic growth. Our original research was guided by a technical advisory board composed of economic experts and representatives from business, labor, government and community development organizations, while drawing upon our own experience in the economic development field. Our subsequent work to improve and update the *Report Card* continues to benefit from the advice and counsel of leading practitioners in economic development and opportunity policy, with whom we talk and work.

Report Card Rationale and Cautions

Like school report cards, this one is intended to identify areas where greater individual effort is desirable and useful — it should be used as a tool for making progress and not as a punishment for past practices.

To produce the *Development Report Card*, we have resisted the temptation to construct one quantitative index that would enable ranking all the states from one to fifty. Although such a summary short-hand approach captures the public imagination and proves easy and dramatic to publicize, it also unduly telescopes the very complex process of development into a single number that means little to those who are more interested in strengthening their state's economy than they are in capturing newspaper headlines.

Numerical rankings also obscure similarities among states and tend to take on an importance out of proportion to their real value. So instead, we choose to assign "grades" — from *A* to *F* — to states with relatively similar levels of achievement on our four separate indexes, thus providing benchmarks for evaluating the separate, but related, dimensions of state economic performance, business vitality, resource capacity and public policy. Though we recognized this could also distort, grades have the advantage of attracting attention and guiding that attention to these four most important dimensions.

As in school, there can be differences in actual scores within these grades but, given the inadequacy of available data and the imprecision of some of the data available, grade ranges are as close as we believe anyone can reasonably come in sorting out the overachievers and underachievers.

By its very nature, assigning grades compares states relative to one another and does not convey a sense of absolute levels. So, for example, if a state has been lacking in financial capacity and makes significant strides in improving its capacity, it may still receive a low grade if other states have also advanced in adding financial capacity at the same time.

Index Construction

Choosing Indexes, Subindexes and Variables

The actual construction of the four indexes in this *Development Report Card* is relatively straightforward. Each index is made up of a series of subindexes chosen on the basis of the determinants of economic development uncovered in our research.

The number of subindexes which form a final index varies from index to index:

- The Performance Index has three subindexes used in calculating the grade — Employment, Earnings and Job Quality and Equity. It also offers an ungraded Environmental Health and Safety subindex, for informational purposes.

- The Business Vitality Index has three subindexes — Competitiveness, Entrepreneurial Energy and Structural Diversity.

- The Capacity Index has four subindexes — Human Resources, Technology Resources, Financial Resources, and Infrastructure and Amenity Resources.

- The Policy Index has six subindexes falling under two broad categories: *Development Preconditions*, comprised of the Tax and Fiscal Environment, Education, and Infrastructure and Amenities subindexes; and *Development Initiatives*, composed of Development Finance, Business Support, and Disadvantaged Communities and Individuals subindexes.

Subindexes are constructed with individual variable measures — like *Infant Mortality* or the *Unemployment Rate*. A few individual variable measures within the subindexes are themselves what we call *composite measures*. Actually, they might be considered sub-subindexes. A composite measure data score has been determined by examining several individual factors which contribute to it. Good examples of composite measures can been found in the Policy Index — in the three separate measures comprising the Tax and Fiscal Environment Climate subindex, as well as in the *Transfer Payment Investment* measures.

Deriving the Scores, Ranks and Grades

The method of deriving a subindex and index ranks and grade is as follows:

- Variable data — the "score" — is collected for each state. The best score receives a ranking of 1. When a tie occurs, both states receive the same ranking, and then the next highest scoring state is ranked as if a tie had not occurred. For example, if the two best ranking states have identical variable scores, they both receive a rank of 1, and the next state is assigned a rank of 3.

- To compile a subindex, each individual state's rank for the variable measures are all added together. This total is the subindex score. Subindex scores are then ranked from 1 to 50. Rank ties are treated in the same way as they are for individual variables.

- Creating a final index score involves a process very similar to creating the subindex scores. State ranks on each subindex are, as in the creation of subindexes, added together, creating an index score. The resulting scores are then ranked from 1 to 50.

- Grades are assigned to each subindex and index final score. In each case, the top 10 scoring states receive *A*'s; the next 10 receive *B*'s; the middle 15 receive *C*'s; the next 10 receive *D*'s; and the final five, *F*'s.

Variable and Subindex Weights

Assigning weights within each index to subindexes is, at this time, essentially arbitrary (and consistent), in that it depends on the number of subindexes within an index. We felt that the simplest and potentially least misleading technique would be to assign equal weights to subindexes in three indexes: Performance, Capacity and Policy. For example, in the Performance Index there are three subindexes. Therefore, each subindex carries a weight of 33 percent. Individual variable measures, consequently, have different effective weights, depending on the number of variables that compose a subindex. However, in the Business Vitality Index, because the Structural Diversity subindex contains only one individual variable measure — and, as we explain in the text, a limited one at that — we assigned it a weight of 10 percent, thus weighting each of the two other Business Vitality subindexes — Competitiveness and Entrepreneurial Energy — forty-five percent.

Appendix B: Indicators of International Competitiveness

Over the last two years — since we first began publishing the *Development Report Card* — we've often been asked the following question: "If, as you claim, having a leading state economy in this country isn't enough to ensure a state's continued prosperity in today's *global* economy, why does the *Report Card* only compare states to other states?"

Well, part of the answer is that drawing a full comparison of an individual state to another nation is kind of like mixing apples and oranges: nations do things that states can't. And, quite frankly, part of the answer is that state comparisons hold more meaning for the average American.

But the question *"How does America stand in comparison to its main economic competitors?"* is an essential and important one, a question that policy leaders must have in mind when they work to promote a globally competitive state economy. So, this year, we have selected some key measures to compare the U.S. to our major trading partners — Canada, France, West Germany, Italy, Japan and the United Kingdom. These measures were selected to roughly parallel three of the *Report Card*'s "domestic" indexes — Performance, Business Vitality and Capacity. Unfortunately, we were not able to unravel sufficiently the complicated policy initiatives found in various countries to attempt to present any nation-to-nation Policy comparisons.

The caveats we claim when grading states bear even more weight when attempting to compare nation to nation. One serious limit is that much of the data available for comparisons is two years or more out of date — that is, current only through 1986. To cope with this constraint, and to provide a view of the nations' recent economic dynamics, we have tried, when possible, to measure a variable's change or average over the 1980s.

Even more daunting is finding *comparable* data for seven different countries. Many key questions we would like to answer — such as the level of entrepreneurial activity in a country — must go unanswered, while others must rely on very rough proxies.

Finally — and this might go without saying — each country is unique. Even more for nations than for states, every country has a character and particular political, social, cultural and institutional conditions all its own that help to define its economic development. No economic index can account for these differences.

While recognizing the serious

limitations of making international comparisons, we present the following indicators, not as a definitive work in assessing our nation's competitiveness, but to help provide our *Report Card*'s users with some needed and crucial perspective.

Economic Performance Indicators

First, we offer several indicators that provide a sense of how well the major industrial nations provide their citizens with the opportunity for a better life.

Employment

- *Employment Change:* the growth in number of jobs is a key indicator of the availability of economic opportunities in a nation. This measure covers non-agricultural workers and examines the change in employment levels from 1979 through 1987.

- *Unemployment:* a quick measure of whether an economy is meeting the needs of its workers is the unemployment rate. We present the average of annual unemployment rates from 1979 through 1987 adjusted to be comparable to U.S. definitions.

Earnings and Job Quality

- *Standard of Living:* this indicator provides an aggregate measure of the amount of goods and services that an economy is generating for its residents in 1987.

- *Standard of Living Change:* the average of annual changes in standard of living from 1979 through 1987.

- *Industrial Disputes:* the average number of days lost in industrial disputes from 1980 to 1985 is included as a proxy for the working conditions in a nation.

Equity

- *Income Distribution:* to gain an appreciation of the level of economic equity in a country, we compare the share of income of the poorest 20 percent of households to the highest 20 percent. One should be cautious when making comparisons with this data since it tends to be very old, dating back to the late 1970s, and because the methodology used to determine household incomes varies by nation.

- *Gender Gap:* this measure presents a comprehensive assessment of the status of women in the different nations in the mid-1980s.

- *Infant Mortality:* the number of infant deaths per 100,000 live births is included to provide a proxy for health conditions of the poor in each nation.

Business Vitality Indicators

Here we examine indicators that help gauge how competitive a nation's industries are in the global marketplace.

- *Trade Balance Change:* this measure gives an overview of the trading position of a nation. It examines the average annual change from 1980 through 1986 in the difference between the value of exports and imports.

International Competitiveness Data

ECONOMIC PERFORMANCE

	Employment				Earnings and Job Quality						Equity					
	Employment Change 1979-87		Unemployment 1979-87 avg. ann.		Standard of Living 1987 per capita		Standard of Living Change 1979-87 avg. ann.		Industrial Disputes 1980-85 avg. ann.		Income Distribution (dates vary)		Gender Gap 1986-88		Infant Mortality 1985 per 100M	
	%	Rank	%	Rank	$	Rank	%	Rank	Days	Rank	Ratio	Rank	Score	Rank	Deaths	Rank
United States	13.7	2	7.4	4	18,298	1	1.4	6	148	4	.174	4	82.5	1	11	6
Canada	14.9	1	9.4	6	17,227	2	1.7	3	609	6	.133	6	80.5	2	8	2
France	–1.6	7	8.5	5	12,795	5	1.2	7	88	3	.130	7	76.0	3	8	2
West Germany	-0.3	5	5.6	2	13,349	3	1.5	5	43	2	.200	2	76.0	3	10	5
Italy	3.3	4	5.7	3	12,177	7	2.1	2	740	7	.141	5	74.0	6	12	7
Japan	7.9	3	2.5	1	13,198	4	3.2	1	13	1	.237	1	68.5	7	6	1
United Kingdom	-0.7	6	10.0	7	12,332	6	1.6	4	460	5	.176	3	74.5	5	9	4

BUSINESS VITALITY

	Trade Balance Change 1980-86 avg. ann.		Export Change 1980-86		Capital Investment 1980-86 avg. ann.		Manuf. Productivity Change 1979-87 avg. ann.		Unit Labor Cost Change 1979-87 avg. ann.		Manuf. Output Change 1979-87	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
United States	–1.8	7	–32.4	7	7.9	6	3.4	4	2.2	2	20.91	2
Canada	2.5	1	–16.6	6	7.3	7	2.2	7	3.6	6	19.72	4
France	–0.3	5	0.0	2	8.4	3	3.2	5	2.7	3	–1.14	7
West Germany	2.2	2	14.0	1	8.2	4	2.6	6	3.2	5	6.47	5
Italy	–0.5	6	–6.9	4	10.2	1	4.6	3	3.0	4	20.81	2
Japan	1.8	3	–16.1	5	10.2	1	5.1	1	4.7	7	61.63	1
United Kingdom	1.1	4	–5.1	3	8.0	5	4.7	2	1.9	1	0.20	6

RESOURCE CAPACITY

	Human				Technology							
	Education Attainment (dates vary) avg. years		Skilled Labor Availability 1987		Researcher Availability 1986 per 10M wkrs.		University R&D Spending 1986 of GDP		Govt. Non-Defense R&D Spending 1986 of GDP		Patents 1986 per 1000 wkrs.	
	#	Rank	Score	Rank	#	Rank	%	Rank	%	Rank	#	Rank
United States	12.6	1	68.06	3	65	2	.37	2	.39	7	1.87	4
Canada	11.7	2	63.57	4	30	5	.32	5	.58	5	0.71	6
France	6.2	5	58.18	5	43	4	.34	4	.95	2	0.23	7
West Germany	10.4	3	69.14	2	52	3	.37	2	.97	1	4.88	2
Italy	*		57.56	6	27	6	.22	7	.66	3	0.89	5
Japan	9.8	4	84.38	1	79	1	.57	1	.57	6	5.92	1
United Kingdom	*		49.30	7	*		.32	5	.60	4	2.29	3

RESOURCE CAPACITY continued

	Financial							
	Financial "Liquidity" 1987 $/GNP		Commercial Bank Deposits 1987 per capita		Commercial Bank Loans 1987 per capita		Net Savings Rate 1980-86 ann. avg. of GDP	
	Ratio	Rank	$	Rank	$	Rank	%	Rank
United States	0.629	2	8.27	3	7.96	3	3.9	7
Canada	0.436	7	6.61	6	7.21	5	8.5	4
France	0.516	6	6.67	5	7.32	4	8.2	5
West Germany	0.603	4	9.94	2	15.77	2	9.1	3
Italy	0.604	3	7.07	4	4.20	7	11.5	2
Japan	1.129	1	19.58	1	22.06	1	17.5	1
United Kingdom	0.545	5	6.02	7	5.02	6	6.1	6

RESOURCE CAPACITY continued

Infrastructure and Amenities

	Road Condition 1987		Railroad Condition 1987		Air Transport Condition 1987		Telecommunications Condition 1987		Power Supply Condition 1987		Physician Availability 1981 per doctor		Living Conditions 1980 persons/room	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Pop.	Rank	#	Rank
United States	87.62	3	76.19	5	93.33	1	95.87	1	90.79	2	500	5	.5	1
Canada	89.76	2	82.86	3	90.00	2	95.00	2	96.19	1	550	4	.5	1
France	76.97	4	89.09	1	80.00	4	86.06	3	90.30	3	460	6	.8	5
West Germany	91.14	1	87.59	2	84.81	3	82.31	5	89.87	4	420	7	.6	3
Italy	73.66	5	31.71	7	60.49	7	50.24	7	61.95	7	750	1	.8	5
Japan	57.85	7	81.85	4	63.69	6	84.31	4	86.77	5	740	2	.8	5
United Kingdom	66.20	6	61.69	6	78.59	5	75.49	6	82.25	6	680	3	.6	3

For further detail on individual measures, please see the appendix text and data sources listing.

*Data not available

- *Export Change:* this indicator takes a more detailed look at whether a nation's goods and services are in demand abroad. It measures the change from 1980 to 1986 in the value of exports of goods and services relative to the size of the nation's economy.

- *Capital Investment:* whether industry is investing in its ability to produce is a major indicator of its competitive standing. Here we examine the average level of investment in machinery and equipment from 1980 to 1986, relative to the size of the nation's economy.

- *Manufacturing Productivity Change:* one of the most informative indicators of the changing status of a nation's ability to compete, as well as its ability to offer its citizens a higher standard of living, is the productivity of its industries, that is, its output per hour. This indicator examines the average annual productivity for manufacturing industries from 1979 to 1987.

- *Unit Labor Cost Change:* provides a perspective on the value of productivity gains relative to labor costs in a nation.

- *Manufacturing Output Change:* another indicator of the strength of a nation's manufacturing sector is the growth in total output. We look at the growth over the period 1979 to 1987.

Resource Capacity Indicators

We examine several indicators of the level and quality of basic resources — from human to technology to financial to infrastructure and amenities — that are essential to sustain economic growth over time.

Human

- *Education Attainment:* education level is generally used to evaluate the skills of the workforce. This measure, unfortunately, has some weaknesses — including the fact that the quality of education across nations may not be similar, and that, in some nations, data on education levels is available only for men.

- *Skilled Labor Availability*: this

measure uses a survey of chief executive officers of businesses and economic experts to evaluate the availability of skilled labor. It provides a business perspective on how well a nation's current workforce meets the needs for skilled labor.

Technology

- *Researcher Availability:* the number of researchers relative to the size of a nation's workforce provides a direct indication of the capacity to carry-out R&D activities in a nation.

- *University R&D Spending:* the support for university-level research efforts is crucial both for generating new researchers as well as for moving a nation's technical expertise ahead.

- *Government Non-Defense R&D Spending:* the commitment the government has to support non-defense related R&D activities can make an important difference to new product development in a country.

- *Patents:* an indication of whether a nation is successful at applied research — and at moving its research to the marketplace — is the number of patent applications. One problem with this measure is that it does not take into account differences in the regulatory environments across countries.

Financial Resources

- *Financial "Liquidity":* this indicates very roughly the extent to which money is available relative to the amount of goods and services produced in an economy; that is, it shows the degree of development in a nation's financial system.

- *Commercial Bank Deposits:* this provides an indication of the pool of available resources for commercial banks to lend to businesses.

- *Commercial Bank Loans:* this measure reveals the extent to which commercial banks serve their nation's business financing needs. One caveat is that a country's tax laws may influence the degree to which businesses rely on internally-generated capital — as opposed to outside financing — for their borrowing needs.

- *Net Savings Rate:* perhaps the best nation-wide indicator of the availability of resources for investment and the cost of borrowing is the national savings rate.

Infrastructure and Amenities

To compare the condition of these seven industrial nations' physical infrastructure, we rely on a survey of business executives and economic experts from across the world conducted by the World Economic Forum, a Switzerland-based foundation. This survey asked these business executives and economic experts to rate from 0 to 100 the extent to which various aspects of a nation's infrastructure is developed sufficiently to meet the needs of a company competing internationally. Among the key aspects of a nation's physical infrastructure rated are:

- *Road Condition*

- *Railroad Condition*

- *Air Transport Condition*

- *Telecommunications Condition*

- *Power Supply Condition*

We include two other measures to provide a rough comparison of amenities available in each of the seven countries:

- *Physician Availability:* the number of people per physician.

- *Living Conditions*

Observations

While it is impossible to provide one definitive statement about our nation's ability to compete in today's global economy, it is clear from a quick glance at the indicators presented here that America is no longer the unchallenged leader in the world economy. It is now one of several strong competitors in a tough field.

Like all competitors, we have some strengths and some weaknesses. In particular, throughout the 1980s, our nation's businesses simply did not keep pace with those of our chief competitors in trade and investment activity and, to a lesser extent, productivity improvements. The result, not surprisingly, has been that the growth in our standard of living has not kept pace with other major industrial nations.

On the bright side, our nation's economy does very well compared to other major industrial nations at generating jobs. That fact — which often causes foreigners to marvel — underlies the dynamism of the American economy. We also possess generally strong resource capacities that help our economy continue to move forward.

But these resources will deteriorate unless we continue to prudently invest in them. For example, the recent news that U.S. high school students are lagging far behind other industrialized nations in math and science skills indicates that our high ranking in human resource capacity is in jeopardy if we do not dramatically improve our educational systems. And the current pressure from budget deficits, especially at the federal level, encourages policymakers to defer infrastructure improvements — which will eventually threaten our economy's ability to compete.

In the final analysis, understanding how we stand today must serve as a benchmark on how we meet the challenges of tomorrow. We need to keep moving forward to remedy weaknesses and build on strengths. Standing still is a recipe for falling behind.

International Competitiveness Data Sources

Economic Performance Indicators

Employment

- *Employment Change*
  Employment of workers, non-agricultural, approximating U.S. concepts, 1979-1987. Percent change.
  Source: U.S. Department of Labor, Bureau of Labor Statistics, *Comparative Labor Force Statistics for Ten Countries: 1959-1987*, September 1988.

- *Unemployment*
  Percent of total labor force unemployed, approximating U.S. concepts, average annual for 1979 through 1987.
  Source: U.S. Department of Labor, Bureau of Labor Statistics, *Unemployment Rates in Eight Countries, 1972-1988*, November 1988.

Earnings and Job Quality

- *Standard of Living*
  Average real gross domestic product based on OECD price weights, per capita, 1987. Dollars (U.S.).
  Source: U.S. Department of Labor, Bureau of Labor Statistics, Office of Productivity and Technology, unpublished data, May 1988.

- *Standard of Living Change*
  Average growth in real gross domestic product, per capita, based on own country price weights, 1979-1987, average annual percent.
  Source: U.S. Department of Labor, Bureau of Labor Statistics, Office of Productivity and Technology, unpublished data, May 1988.

- *Industrial Disputes*
  Number of days lost in industrial disputes per thousand non-agricultural workers, average annual, 1980-1985.
  Source: U.S. Department of Labor, Bureau of Labor Statistics, Office of Productivity and Technology, *Industrial Disputes, Workers Involved and Work Time Lost, 15 Countries, 1955-1986* (Washington, DC: Government Printing Office, February 1988).

Equity

- *Income Distribution*
  Equality of household income distribution, ratio of income share of poorest 20 percent to highest 20 percent.
  Note: Years of data vary by nation: U.S. (1980), Canada (1981), France (1975), West Germany (1978), Italy (1977), Japan (1979), U.K. (1979).
  Source: World Bank, *World Development Report 1988* (New York: Oxford University Press, 1988).

- *Gender Gap*
  Absence of discrimination against women in areas of health, marriage and children, education, employment, social equality based on social equality variances, 1986-1988. Index score.
  Source: "Country Rankings of the Status of Women: Poor, Powerless and Pregnant," *Population Briefing Paper*, No. 20, June 1988.

- *Infant Mortality*
  Infant deaths per 100,000 live births, 1985.
  Source: World Bank, *World Tables, 1987* (Washington, DC: World Bank, 1988).

Business Vitality Indicators

- *Trade Balance Change*
  Trade balance in goods and services as a percent of GDP, average annual percent, 1980-86.
  Source: OECD, *Historical Statistics, 1960-1986* (Paris: OECD, 1988).

- *Export Change*
  Change in exports of goods and services as a percent of GDP, percent change, 1980-1986.
  Source: OECD, *Historical Statistics, 1960-1986* (Paris: OECD, 1988).

- *Capital Investment*
  Investment in machinery and equipment as a percentage of GDP, 1980-1986, annual average. (Note: For Japan, average is from 1980-1985.).
  Source: OECD, *Historical Statistics, 1960-1986* (Paris: OECD, 1988).

- *Manufacturing Productivity Change*
  Growth in manufacturing output per hour, average annual percent, 1979-87.
  Source: U.S. Department of Labor, Bureau of Labor Statistics, "International Comparisons of Manufacturing Productivity and Labor Cost Trends, 1987," press release, July 6, 1988.

- *Unit Labor Cost Change*
  Growth in manufacturing unit labor costs, average annual percent, 1979-87.
  Source: U.S. Department of Labor, Bureau of Labor Statistics, "International Comparisons of Manufacturing Productivity and Labor Cost Trends, 1987," press release, July 6, 1988.

- *Manufacturing Output Change*
  Growth in manufacturing output, percent change, 1979-87.
  Source: "Current Labor Statistics: International Comparisons Data," *Monthly Labor Review*, December 1988.

Resource Capacity Indicators

Human

- *Education Attainment*
  Mean years of schooling of total labor force. Year of data varies by country: U.S (1981), Canada (1981), France (1982), West Germany (1982), and Japan (1979). No data available for Italy and U.K.
  Note: For France and West Germany, data is based only on male population.
  Source: George Psacharopoulos and Ana-Maria Arriagada, "The Educational Attainment of the Labor Force: An International Comparison," Discussion Paper, Education and Training Series of the World Bank, October 1986.

- *Skilled Labor Availability*
  Assessment of the availability of skilled workers, based on opinion survey of business leaders and economic experts, 1987. Score: 0 = workers not at all available; 100 = very available.
  Source: World Economic Forum, *Competitiveness Criteria, 1987* (Switzerland: World Economic Forum, 1988).

Technology

- *Researcher Availability*
  Number of researchers or holders of university-based degrees engaged in R&D, per 10,000 labor force participants, 1986.
  Source: OECD In Figures: Statistics on the Member Countries, 1988 Edition, supplement to the *OECD Observer* June-July 1988.

- *University R&D Spending*
  Higher education sector expenditure on R&D, percent of GDP, 1986.
  Source: OECD In Figures: Statistics on the Member Countries, 1988 Edition, supplement to the *OECD Observer* June-July 1988.

- *Government Non-Defense R&D Spending*
  Government budget appropriations for R&D, non-defense related, percent of GDP, 1986.
  Source: OECD In Figures: Statistics on the Member Countries, 1988 Edition, supplement to the *OECD Observer* June-July 1988.

- *Patents*
  Number of patent applications, in country and abroad, per 1,000 workers, non-agricultural workforce, 1986.
  Source: OECD In Figures: Statistics on the Member Countries, 1988 Edition, supplement to the *OECD Observer* June-July 1988.

Financial Resources

- *Financial "Liquidity"*
  Money plus quasi-money as a percent of GNP, 1987. Ratio.
  Source: International Monetary Fund, *International Financial Statistics* (Washington, DC: IMF, 1988).

- *Commercial Bank Deposits*
  Demand deposits plus time and savings deposits held in commercial banks, per capita, 1987. Dollars (U.S.).
  Source: International Monetary Fund, *International Financial Statistics* (Washington, DC: IMF, 1988).

- *Commercial Bank Loans*
  Claims on private sector in chartered banks, per capita, 1987. Dollars (U.S.).
  Source: International Monetary Fund, *International Financial Statistics* (Washington, DC: IMF, 1988).

- *Net Savings Rate*
  Net saving as a percentage of GDP, annual average, 1980-1986.
  Source: OECD, *Historical Statistics, 1960-1986* (Paris: OECD, 1988).

Infrastructure and Amenities

- *Road Condition*
  Extent to which road infrastructure is developed for the needs of a company competing internationally, based on an opinion survey of business leaders and economic experts, 1987. Score: 0 = inadequate; 100 = adequate.
  Source: World Economic Forum, *Competitiveness Criteria, 1987* (Switzerland: World Economic Forum, 1988).

- *Railroad Condition*
  Extent to which railroad infrastructure is developed for the needs of a company competing internationally, based on an opinion survey of business leaders and economic experts, 1987. Score: 0 = inadequate; 100 = adequate.
  Source: World Economic Forum, *Competitiveness Criteria, 1987* (Switzerland: World Economic Forum, 1988).

- *Air Transport Condition*
  Extent to which air transport infrastructure is developed for the needs of a company competing internationally, based on an opinion survey of business leaders and economic experts, 1987. Score: 0 = inadequate; 100 = adequate.
  Source: World Economic Forum, *Competitiveness Criteria, 1987* (Switzerland: World Economic Forum, 1988).

- *Telecommunications Condition*
  Extent to which telecommunications infrastructure is developed for the needs of a company competing internationally, based on an opinion survey of business leaders and economic experts, 1987. Score: 0 = inadequate; 100 = adequate.
  Source: World Economic Forum, *Competitiveness Criteria, 1987* (Switzerland: World Economic Forum, 1988).

- *Power Supply Condition*
  Extent to which power supply infrastructure is developed for the needs of a company competing internationally, based on an opinion survey of business leaders and economic experts, 1987. Score: 0 = inadequate; 100 = adequate.
  Source: World Economic Forum, *Competitiveness Criteria, 1987* (Switzerland: World Economic Forum, 1988).

- *Physician Availability*
  Number of residents per doctor, 1981.
  Source: World Bank, *World Development Report 1988* (New York: Oxford University Press, 1988).

- *Living Conditions*
  Average number of persons per room in dwellings occupied as principal residences, 1980.
  Source: OECD, *Living Conditions in OECD Countries* (Paris: OECD, 1986).

Appendix C: More on Traded Sector and Structural Diversity

In last year's *Development Report Card*, we introduced two new indicators of economic competitiveness and diversity to the Business Vitality Index. *Traded Sector Strength* reflects the value added by the key industries in a state, a good measure of the state's competitiveness. The level of *Structural Diversity* indicates how vulnerable a state may be to downturns in one or several of its critical industries.

Despite the fundamental importance of competitiveness and diversity to a state economy, there are no simple or straightforward measures that capture these dimensions of a state's business sector. Therefore, we rely on our more complicated and less intuitive measures. Having had a year's experience with these two measures, we have made several adjustments to improve upon last year's efforts. For this reason, and because they are complex measures in the first place, we offer here a more extensive explanation.

Traded Sector Strength

As we described earlier, the engine of any state economy is its traded sector, comprised of those businesses producing goods and services in competition with firms outside the state. Traded sector firms bring new wealth into an economy by exporting goods and services, and they retain wealth in an economy by substituting for the goods and services that otherwise would have to be imported.

The ideal way to estimate traded sector income would be to use an up-to-date input-output table to calculate precisely the value of exports from a state's businesses. Unfortunately, such up-to-date data do not exist; the latest are over a decade old.

As an alternative, we calculate the size of a state's traded sector by the amount of income it brings into the economy for each civilian worker. Using 1987 data, we estimate for each industry in a state the amount of that industry's income derived from traded sector activities, and then sum across all industries to arrive at traded sector income for the state.

Of course, the difficulty in designing such a measure is specifying which industries within an individual state's economy are, in fact, "traded." For several industries (as designated by SIC codes), we assumed that all their income is derived from traded activities. These include manufacturing, insurance carriers, metallic mining, forestry, farming and fisheries. We also designated additional industries as being partially-traded. Partially-traded industries differ from state to state in the extent to which their activities are traded. For instance, while in most states banking is a local, non-traded activity, in states like New York and Delaware, much banking activity is traded.

Last year, our project team determined which industries we considered fully-traded and partially-traded. Since then, we discovered a U.S. Bureau of Economic Analysis classification of industries into fully-, partially- and non-traded categories.[1] We have adapted the BEA classification system and augmented it with our own research for this year's measure of *Traded Sector Strength*, significantly expanding the lists of both fully- and partially-traded sectors.

Industries we count as fully traded include: farming, agricultural services, forestry, fisheries, coal mining, petroleum mining, metals mining, manufacturing (except for food processing and printing/ publishing), railroad transportation, pipeline transportation, water transportation, mail-order houses, insurance carriers, and research and development. Partially traded industries include: nonmetals mining, food processing, print/ publishing, air transportation, trucking, transportation services, utilities, banking, securities brokers, hotels, amusements and recreation, motion pictures, educational services, and federal government.

We used two steps to determine the extent to which the income from the partially-traded industries in each state should be counted as traded. First, we determined a location quotient for each industry in each state. A location quotient measures an industry's share of state employment relative to its share of national employment. A location quotient of 1.0 means that the industry has the same share of state employment as it does national employment. A quotient of 1.5 means that the industry's share of employment in the state is 50 percent more than its national share. Next we analyzed the distribution of location quotients for each partially-traded industry to determine the appropriate formula for estimating the percent of industry income that is traded. In each industry, the higher the location quotient, the higher the percent of income that is attributed to the industry's trading activity.

To calculate total traded sector income, incomes from the totally-traded and partially-traded sectors were added together. To arrive at the measure of *Traded Sector Strength*, we divided the sum of traded sector income by the number of civilian workers in a state, so as to be able to compare across states.

Structural Diversity

In examining *Structural Diversity*, we are concerned not with how diverse a state's economic structure *looks* — for example, how its employment is distributed over a wide range of industries — but rather how diverse it *acts*. That is, in an economy that has structural diversity, when one industry is declining, others should be growing or stable. We are, therefore, interested in the diversity of employment change, which provides a measure of protection against downside risk — we don't want to see all of a state's major industries declining at the same time. Our attention is again focused on traded sector industries, since these are the industries that generate wealth in a state.

We attempt to measure the extent of similarity in employment change from industry to industry. Such a similarity in change is known in statistical terms as "covariance." When employment change is diverse, there is a significant amount of negative covariance between industries — so that when one industry is declining, another is growing, and vice-versa.

Obviously, it is important to adjust for the size of each industry, so our measure assigns an industry weight based on what percentage of traded sector employment it holds. The measure also takes into account the actual percentage change in employment in each industry — the higher the percentage, the greater the impact. So if two key industries both decline significantly, the measure is more unfavorably affected than if they both declined a small amount.

A weakness with this diversity measure is that it penalizes states in which all industries are growing. In fast-growth states that currently has many sectors enjoying substantial gains, it is not clear that their industries will also decline together. We made adjustments to counter this bias in the measure. Even so, it must be interpreted with care for fast-growth states like Florida and Arizona.

To calculate *Structural Diversity*, we use these specific steps. First, each state's traded sector industries is determined by doing two things:

- We sum up employment over all fully-traded industries — farming, agricultural services, forestry, fisheries, coal mining, petroleum mining, metals mining, manufacturing (except for food processing and printing/publishing), railroad transportation, pipeline transportation, water transportation, mail-order houses, insurance carriers, and research and development.

- We then add in employment for each state's partially-traded industries (as determined by the formulas discussed above in *Traded Sector Strength*).

Determining the state *Diversity* score involves three more steps.

- For every possible pair of included industries, a score is developed. The score is the covariance of employment change in those industries between 1979 and 1987 multiplied by the weight (based on employment size of sector) of one industry times the weight of the other.

- The score for every pair of industries is then summed to get the raw state *Diversity* score.

- To at least partially adjust for the bias against fast-growth states, we divided each state's raw diversity score by the square of its 1987 civilian labor force index (based on 1979=1). For instance, a state with a raw diversity score of 2 and a labor force index of 1.1 (that is, 10 percent growth over 1979) would get an adjusted diversity score of 2/[(1.1)(1.1)], or 1.65. Consequently, the larger the growth rate, the more the diversity score was adjusted.

Based on statistical analysis, we determined that bias would be reduced even more if we gave higher growth states even a bigger break. So, for states with a labor force index of 1.22-1.39 and with more than 60 percent of their traded sector employment in growing industries, we cubed the labor force index before dividing. These states were New Hampshire, California, Utah and Georgia. And for states with an index of 1.4 or above (Arizona and Florida), we divided the raw diversity score by the labor force index to the fourth power.

The structure of the *Diversity* formula is such that we aim to keep the number of traded industries in each state between 23 and 29, since a variance that is too wide would decrease the comparability of the state measures. Consequently, for some states, we deleted industries with less than one-quarter of one percent (0.25%) of traded sector employment.

Endnote

1. U.S. Bureau of Economic Analysis, *1985 OBERS BEA Regional Projections, Volume 1: State Projections to 2035* (Washington, DC: U.S. Government Printing Office, 1985).

Appendix D: The Tax and Fiscal Environment Index

This Tax and Fiscal Environment Index comprises the Tax and Fiscal Environment subindex of the Policy Index. It includes three composite measures: *Fiscal Stability and Balanced Revenue Sources*, *Tax Fairness*, and *Fiscal Equalization*.

Fiscal Stability and Balanced Revenue Sources

A balanced revenue system that relies on a variety of taxes serves several purposes. When revenues are raised fairly equally from across several different taxes, a state is unlikely to have high tax burdens for any single tax. Balancing revenue sources also reduces a state's vulnerability to large revenue fluctuations during recessions, sectoral decline or economic shocks. Since there is no perfect tax, a final reason to employ a good mix of taxes is to limit the inequities and inefficiencies that may result from any single tax.

As described below, the potential mix of a balanced tax structure is wide enough to offer a state significant discretion in choosing its own tax mix. By itself, a balanced revenue system does not define the "best" possible tax structure for a state. It is only one aspect of a high quality tax structure, whose ultimate goals also include tax fairness, economic efficiency, administrative efficiency and stable revenue-raising potential.

To measure a balanced revenue system, we evaluated the share of total state and local tax revenues (exclusive of federal aid) provided for by three separate taxes: personal income taxes, general sales taxes, and property taxes.

Points were then assigned based on how well each separate tax compared with an "ideal" range that would result in a well balanced and diversified revenue system. Points were assigned using 1986 U.S. Census data compiled by the Advisory Commission on Intergovernmental Relations (ACIR) according to the following formulas:

- *Personal Income Tax:* States receive 25 points if personal income taxes account for 20 to 30 percent of state and local tax revenues. Two points are deducted for every percentage point outside this range.

- *General Sales Tax:* States receive 25 points if general sales tax revenues account for 20 to 30 percent of state and local tax revenue. Two points are deducted for every percentage point outside this range.

- *Property Tax:* States receive 25 points if general property tax revenues account for 20 to 30 percent of state and local tax revenue. Two points are deducted for every percentage point outside this range.

Since business investments are long-term commitments to an area, an important consideration for business when investing in an area is the likelihood that the quality of services paid for through taxation — as well as the level of taxation — will remain stable over time. In addition, with the decline in federal aid and the increased vulnerability of state economies to recession and sectoral decline, states must now pay greater attention to fiscal stability.

To address these fiscal shocks without resorting to tax increases and service cuts, states need to have reserve funds available. Fiscal stability is also enhanced when spending — both direct spending and tax expenditures — is subject to close scrutiny and control. Therefore, the fiscal stability component of this tax measure is based on the presence and size of state "rainy day" reserve funds that address revenue shortfalls, as well as the presence of tax expenditure budgets that help states control spending.

- *Rainy Day Fund:* States receive 10 points if they have a rainy day fund; two more points are added for every percentage point up to 5 percent of general revenue in their rainy day fund — allowing for a maximum total of 20 points.

- *Tax Expenditure Budget:* States receive 5 points if they have a legally-mandated tax expenditure budget and 2.5 points if they issue a tax expenditure budget that is not legally-mandated or published annually.

Tax Fairness

States need to be concerned with tax fairness from two perspectives: treating taxpayers in the same circumstances equally — *horizontal* equity — and tailoring tax burdens to the ability to pay — *vertical* equity.

Fairness helps build political credibility for state and local governments, mitigating individual and business taxpayers' perceptions that the tax system may benefit others at their expense. Horizontal equity also reinforces the neutrality of the tax system by minimizing the favorable treatment of certain economic activities or certain types of taxpayers. Thus, tax fairness can foster a sound business climate by buttressing government's capacity to deliver necessary services, and by placing all businesses on a "level playing field." Finally, a fair tax policy should reduce taxes for taxpayers with limited income and shield the working poor and moderate income families from a regressive tax system.

Five measures of tax fairness are included in this year's index:

- *Burden of Sales and Excise Taxes on Low-Income Families:* This measure examines the level or burden of sales and excise taxes as a percent of income for a low-income family of four. (Low-income is defined for this measure as the poorest 20 percent of all families in the state.) The lower the burden, the higher the score. The maximum number of points a state can receive is 25.

- *Sales Tax on Services:* This measure examines how extensively the sales tax base includes services. States receive 10 points maximum for sales taxation of services. A state receives 10 points for general taxation of most professional services, 8 points for broad taxation of services, 6 points for substantial taxation of services, 2 points for narrow taxation of services and no points for no or little taxation of services.

- *Progressivity of Personal Income Tax:* This measure is based on a comparison of the personal income tax burden for the richest twenty-five percent of a state's taxpayers to the burden for each of other three quartile lower-income groupings in the state, across four different typical household comparisons per state. The more progressive a state's personal income tax is, the lower the share of taxes paid by the lower income groups. The maximum number of points is 25, and states that have no personal income tax receive no points.

- *Low Income Threshold:* This measure examines the income level at which residents begin paying taxes. The maximum number of points is 20; the higher the income threshold, the more points a state receives. No points are given to states without a personal income tax.

- *Circuit Breaker:* A state receives 20 points if it has a state-financed property tax circuit breaker available to all taxpayers.

Fiscal Equalization

State policies to promote equal fiscal capacity among local governments are essential for a sound business climate. These policies increase the ability of all communities to provide a sufficient level and quality of services to firms and individuals. Furthermore, they reduce the opportunity that large property tax differentials between nearby communities will influence residential and firm location choices. More importantly, equalizing state fiscal aid can alleviate financial stress and high tax burdens in urban centers that have large service needs but low taxable wealth.

Fiscal equalization was measured by the extent to which state governments finance key service costs and provide revenue sharing aid to communities. Scores were based on 1986 Census Bureau data compiled by the Advisory Committee on Intergovernmental Relations according to the following formula:

- *Welfare Costs:* States receive .15 points for every percentage point of total state and local welfare costs assumed by state government, up to a maximum of 20 points.

- *Health and Hospital Costs:* States receive .15 points for every percentage point of total state and local health and hospital costs assumed by state government up to a maximum of 20 points.

- *Local Education Costs:* States receive 1 point for every percentage point of total state and local education costs assumed by state government between 30 and 70 percent.

- *General Revenue Sharing:* States receive 1 point for every percentage by which its general revenue contribution exceeds the U.S. average, up to a maximum score of 20 points.

Tax and Fiscal Environment Data

	FISCAL STABILITY AND BALANCED REVENUE SOURCES						TAX FAIRNESS	
	Personal Income Tax 25 max.	General Sales Tax 25 max.	Property Tax 25 max.	Rainy Day Fund 20 max.	Tax Expenditure Budget 5 max.	SUBTOTAL 100 max.	Low Income Excise Burden 25 max.	Sales Tax on Servs. 10 max.
Alabama	**23.698**	**23.809**	**8.140**	**0.0**	**2.5**	**58.1**	**1.5**	**10.0**
Alaska	0.000	0.000	25.000	10.0	2.5	37.5	24.0	0.0
Arizona	**13.674**	**13.534**	**25.000**	**0.0**	**5.0**	**57.2**	**5.5**	**8.0**
Arkansas	25.000	20.175	20.907	0.0	2.5	68.6	4.0	6.0
California	**25.000**	**25.000**	**25.000**	**10.0**	**5.0**	**90.0**	**19.0**	**10.0**
Colorado	24.400	25.000	14.849	0.0	0.0	64.2	17.5	10.0
Connecticut	**0.000**	**25.000**	**9.927**	**20.0**	**0.0**	**54.9**	**14.5**	**8.0**
Delaware	6.639	0.000	11.804	20.0	0.0	38.4	24.0	0.0
Florida	**0.000**	**16.709**	**20.507**	**13.2**	**2.5**	**52.9**	**17.0**	**2.0**
Georgia	25.000	25.000	25.000	15.4	0.0	90.4	14.0	10.0
Hawaii	**25.000**	**6.239**	**20.195**	**0.0**	**2.5**	**53.9**	**10.5**	**2.0**
Idaho	25.000	25.000	25.000	10.0	0.0	85.0	12.0	10.0
Illinois	**14.613**	**25.000**	**15.310**	**0.0**	**0.0**	**54.9**	**5.0**	**10.0**
Indiana	25.000	20.995	20.868	20.0	0.0	86.9	10.5	10.0
Iowa	**25.000**	**23.037**	**8.225**	**10.0**	**0.0**	**66.3**	**15.0**	**4.0**
Kansas	18.942	25.000	8.574	0.0	0.0	52.5	20.5	6.0
Kentucky	**25.000**	**25.000**	**20.294**	**10.0**	**5.0**	**85.3**	**14.0**	**10.0**
Louisiana	1.228	9.478	15.225	0.0	5.0	30.9	1.0	6.0
Maine	**25.000**	**25.000**	**17.405**	**14.2**	**5.0**	**86.6**	**12.0**	**10.0**
Maryland	12.346	15.597	25.000	12.2	5.0	70.1	19.5	6.0
Massachusetts	**20.835**	**15.534**	**22.815**	**0.0**	**5.0**	**64.2**	**22.5**	**10.0**
Michigan	25.000	19.499	8.676	20.0	5.0	78.2	17.0	10.0
Minnesota	**25.000**	**22.906**	**23.324**	**20.0**	**5.0**	**96.2**	**8.0**	**10.0**
Mississippi	6.522	3.601	25.000	12.6	0.0	47.7	0.0	6.0
Missouri	**25.000**	**15.706**	**25.000**	**10.0**	**2.5**	**78.2**	**8.0**	**10.0**
Montana	15.568	0.000	0.000	0.0	0.0	15.6	22.0	0.0
Nebraska	**17.906**	**23.106**	**0.000**	**0.0**	**5.0**	**46.0**	**12.0**	**10.0**
Nevada	0.000	15.079	25.000	0.0	0.0	40.1	14.0	10.0
New Hampshire	**0.000**	**0.000**	**0.000**	**19.8**	**0.0**	**19.8**	**24.0**	**0.0**
New Jersey	13.846	21.741	3.967	14.6	0.0	54.2	21.0	6.0
New Mexico	**0.000**	**4.097**	**7.981**	**20.0**	**0.0**	**32.1**	**17.0**	**2.0**
New York	25.000	23.992	25.000	10.4	0.0	84.4	9.0	6.0
North Carolina	**25.000**	**25.000**	**25.000**	**0.0**	**5.0**	**80.0**	**9.5**	**8.0**
North Dakota	1.825	25.000	25.000	10.0	0.0	61.8	8.0	10.0
Ohio	**25.000**	**25.000**	**25.000**	**15.2**	**0.0**	**90.2**	**14.0**	**6.0**
Oklahoma	17.416	25.000	21.431	17.0	0.0	80.8	2.5	10.0
Oregon	**23.369**	**0.000**	**0.000**	**0.0**	**0.0**	**23.4**	**25.0**	**0.0**
Pennsylvania	25.000	22.381	25.000	11.6	0.0	84.0	19.0	6.0
Rhode Island	**23.379**	**24.012**	**3.527**	**14.6**	**0.0**	**65.5**	**18.0**	**10.0**
South Carolina	25.000	25.000	25.000	17.0	0.0	92.0	6.0	8.0
South Dakota	**0.000**	**23.476**	**1.367**	**0.0**	**0.0**	**24.8**	**2.0**	**2.0**
Tennessee	0.000	0.000	25.000	16.4	0.0	41.4	0.5	6.0
Texas	**0.000**	**25.000**	**4.997**	**0.0**	**5.0**	**35.0**	**4.0**	**6.0**
Utah	25.000	21.840	25.000	14.8	0.0	86.6	3.0	6.0
Vermont	**24.989**	**9.559**	**10.052**	**13.2**	**0.0**	**57.8**	**21.5**	**10.0**
Virginia	25.000	18.729	25.000	0.0	0.0	68.7	17.0	10.0
Washington	**0.000**	**0.000**	**25.000**	**10.0**	**5.0**	**40.0**	**4.5**	**4.0**
West Virginia	25.000	15.369	18.474	0.0	0.0	58.8	9.0	4.0
Wisconsin	**25.000**	**22.285**	**15.658**	**0.0**	**5.0**	**67.9**	**8.0**	**6.0**
Wyoming	0.000	18.773	0.000	20.0	0.0	38.8	20.0	6.0

For final *Tax and Fiscal Environment* score, rank and grade, please see *Policy Index*. For further detail on individual measures, please see the appendix text.

TAX FAIRNESS continued				FISCAL EQUALIZATION					
Income Tax Progressivity 25 max.	Low-Income Threshold 20 max.	Circuit Breaker 20 max.	SUBTOTAL 100 Max.	Welfare 20 max.	Health & Hospital 20 max.	Local Education 40 max.	Gen. Rev. Sharing 20 max.	SUBTOTAL 100 Max.	
5.5	6.0	0.0	23.0	14.4	6.5	40.0	0.000	60.9	Alabama
0.0	3.6	0.0	27.6	13.6	11.0	40.0	7.357	71.9	Alaska
13.5	10.0	0.0	37.0	11.0	6.3	22.6	7.531	47.5	Arizona
16.5	6.4	0.0	32.9	14.1	8.1	27.9	2.144	52.3	Arkansas
25.0	20.0	0.0	74.0	13.9	7.4	40.0	1.347	62.7	California
9.0	14.4	0.0	50.9	12.6	7.8	14.2	0.000	34.7	Colorado
0.0	1.6	0.0	24.1	12.9	13.9	8.7	0.000	35.5	Connecticut
17.5	10.4	0.0	51.9	14.9	14.9	40.0	0.000	69.8	Delaware
0.0	1.2	0.0	20.2	13.0	5.6	30.6	0.000	49.3	Florida
15.0	11.2	0.0	50.2	20.0	3.5	33.2	0.000	56.8	Georgia
18.0	6.8	0.0	37.3	14.5	14.5	40.0	0.000	69.1	Hawaii
18.5	16.4	0.0	56.9	11.2	4.5	34.9	3.596	54.2	Idaho
6.0	4.4	0.0	25.4	14.0	8.3	15.9	0.000	38.1	Illinois
7.0	4.0	0.0	31.5	9.8	6.1	32.2	5.870	54.0	Indiana
11.5	8.4	0.0	38.9	12.7	7.1	24.2	0.000	43.9	Iowa
15.5	16.8	20.0	78.8	14.3	7.9	15.8	0.000	38.0	Kansas
6.5	5.6	0.0	36.1	14.1	9.0	39.9	0.000	62.9	Kentucky
16.0	13.2	0.0	36.2	15.3	8.3	34.4	0.000	57.9	Louisiana
23.0	17.6	20.0	82.6	14.5	10.5	17.8	0.000	42.8	Maine
8.0	17.2	20.0	70.7	14.7	18.5	7.0	5.572	45.8	Maryland
14.0	14.0	0.0	60.5	14.7	11.0	14.5	20.000	60.2	Massachusetts
7.5	8.0	20.0	62.5	14.1	10.7	3.6	11.418	39.8	Michigan
19.5	15.6	20.0	73.1	9.4	7.5	27.2	9.384	53.5	Minnesota
24.0	19.2	0.0	49.2	13.6	4.7	40.0	0.000	58.3	Mississippi
8.5	9.6	0.0	36.1	14.4	7.4	14.4	0.000	36.2	Missouri
13.0	7.6	0.0	42.6	12.0	9.7	9.6	0.000	31.3	Montana
14.5	16.0	0.0	52.5	13.5	6.5	0.0	1.444	21.5	Nebraska
0.0	2.0	0.0	26.0	10.9	4.4	40.0	8.223	63.5	Nevada
0.0	0.4	0.0	24.4	11.0	14.5	0.0	0.000	25.6	New Hampshire
9.5	4.8	0.0	41.3	13.4	10.7	12.0	6.462	42.5	New Jersey
23.5	13.6	0.0	56.1	13.5	11.5	40.0	0.000	65.0	New Mexico
21.5	18.0	20.0	74.5	12.4	7.7	17.2	0.000	37.2	New York
12.5	5.2	0.0	35.2	12.5	9.1	34.9	0.000	56.5	North Carolina
19.0	15.2	20.0	72.2	13.6	14.4	28.5	8.618	65.0	North Dakota
20.0	12.0	0.0	52.0	12.4	8.0	19.4	0.000	39.8	Ohio
21.0	10.8	0.0	44.3	15.2	7.5	33.0	0.000	55.7	Oklahoma
12.0	11.6	20.0	68.6	13.7	10.8	2.7	0.000	27.2	Oregon
5.0	8.8	0.0	38.8	15.1	13.2	17.2	0.000	45.5	Pennsylvania
22.5	18.8	0.0	69.3	14.9	15.2	12.0	0.000	42.1	Rhode Island
20.5	14.8	0.0	49.3	13.4	8.5	28.9	0.000	50.8	South Carolina
0.0	3.2	0.0	7.2	11.1	10.8	6.9	0.000	28.9	South Dakota
0.0	0.8	0.0	7.3	13.2	5.6	21.7	1.121	41.6	Tennessee
0.0	2.4	0.0	12.4	13.4	6.3	20.8	0.000	40.5	Texas
10.0	12.8	0.0	31.8	15.9	12.3	31.6	0.000	59.9	Utah
22.0	18.4	20.0	91.9	14.9	14.2	2.9	0.000	32.1	Vermont
11.5	7.2	0.0	45.7	13.0	11.8	19.5	0.000	44.4	Virginia
0.0	2.8	0.0	11.3	16.3	8.7	40.0	0.000	65.0	Washington
17.0	9.2	0.0	39.2	15.0	7.0	40.0	0.000	62.0	West Virginia
10.5	12.4	20.0	56.9	11.9	8.4	16.9	20.000	57.1	Wisconsin
0.0	0.0	0.0	26.0	14.5	0.0	13.4	13.735	41.6	Wyoming

Tax and Fiscal Environment Data Sources

Note: All Tax and Fiscal Environment measures were calculated by The Corporation for Enterprise Development, based on the U.S. Census Bureau data for fiscal year 1986, contained in the Advisory Commission on Intergovernmental Relations' *State-Local Government Finance Database*, except for the following:

Rainy Day Fund

Whether a state has a rainy day fund, and size of fund relative to state appropriations, FY 1988. Score.

Source: National Conference of State Legislatures, *Survey of Legislative Fiscal Officers* (Denver: National Conference of State Legislatures, July-August, 1988).

Burden of Sales and Excise Taxes on Low-Income Families

Sales and excise tax burden, based on its percent of income for a family of four in poorest 25 percent of a state's population, 1987. Score.

Source: Citizens for Tax Justice, *Nickels and Dimes: How Sales and Excise Taxes Add Up in the 50 States* (Washington, DC: Citizens for Tax Justice, March 1988).

Sales Tax on Services

Degree of taxation of services, 1987. Score.

Source: Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism, 1988* (Washington, DC: Advisory Commission on Intergovernmental Relations, December 1987).

Progressivity of Personal Income Tax

Average ranking of progressivity indexes, state comparisons, 1987.

Source: Michael Mazerov and Iris Lav, *The Fairest of Them All: A Rating of State Personal Income Taxes for 1987 Returns* (Washington, DC: American Federation of State, County & Municipal Employees, April 1988).

Low-Income Threshold

State income tax thresholds for low-income two-parent families of four, 1988.

Source: Robert Greenstein and Fred Hutchinson, "State Tax Relief for Low-Income People," in Steven D. Gold, *The Unfinished Agenda for State Tax Reform* (Denver: National Conference of State Legislatures, 1988).

Circuit Breaker

States with comprehensive property tax circuit breaker, 1988.

Source: National Conference of State Legislatures, staff interview, December 1988.

Appendix E: The Transfer Payment Investment Index

This Transfer Payment Investment Index comprises the four measures contained under the *Transfer Payment Investment* (TPI) component of the Disadvantaged Communities and Individuals subindex of the Policy Index. It attempts to measure the extent to which a state uses income maintenance payments and other programs as investments in the self-sufficiency of the individuals who receive — or are targeted by — them.

We have expanded the Transfer Payment Investment Index this year to go beyond examining solely how states are investing in welfare recipients, by also including how states are now using unemployment compensation (UI) to invest in people. In general, we have looked for signs that there is an effort to help increase the capacity of welfare and UI recipients to help themselves, and a commitment to provide the funds, programs and services necessary to enable them to become more productively active in the economy.

The Transfer Payment Investment Index has four components: Welfare-to-Work Programs, Transitional Support Services, Benefit Level Adequacy, and UI Work Transition Programs.

Welfare-to-Work Programs

State efforts to offer employment and training services to welfare recipients have garnered increasing attention of late. In this component, we examine whether a state is actively pursuing such strategies, as evidenced by their participation in the following:

- *Work Supplementation:* This option permits states to divert grants to pay for employment and training activities for AFDC recipients. These projects vary in their coverage: some are statewide, while others cover a smaller portion of the state.

- *Major Education and Training Component:* These efforts seek to involve welfare recipients in activities that will enhance their work skills. We only included those Work Incentive Demonstration and other state projects that went beyond job search activities and work experience programs and contained employment and training components.

- *Self-Employment Demonstration:* These demonstration projects permit the limited continuation of AFDC grants while recipients are assisted in starting their own micro-enterprises, typically through such efforts as entrepreneurial training and technical assistance. We include all those states that have applied for waivers from selected AFDC regulations to undertake such projects.

Transitional Support Services

In order for AFDC recipients to make the transition from welfare to work successfully, they require certain basic interim support services — principally child care and health services — both during and after they receive training assistance. In this component, we use four measures:

- *Child Care Impact Level*: This measure looks at the changes in the number of Title XX child care slots provided in FY 1988 as compared to FY 1987. States receive credit if there was an increase and are penalized if there was a decrease in the number of slots.

- *Additional State Funding for Title XX Child Care Services:* This measure considers whether a state has allocated additional state funds to support child care services for AFDC recipients.

- *Separate State Program for Low-Income Families:* Several states have gone beyond Title XX and enacted separate state programs to provide child care assistance for low-income working families not eligible for AFDC. This expenditure ensures that those parents who are leaving AFDC — or who are economically vulnerable and likely to need welfare — are able to get the child care services they need so that they may continue working.

- *Medicaid Extension:* Here we measure whether a state adopts the federal option for extending Medicaid coverage to former AFDC recipients for a period of time.

Benefit Level Adequacy

Without the provision of adequate AFDC and Medicaid benefits, efforts to initiate effective transfer payment investment strategies are hampered by the poor living standards of the recipients. Here we examine:

- *AFDC Maximum Family Benefit:* To gauge the adequacy of AFDC benefits fairly from state to state, we measure AFDC benefits for a family of four as a percent of per capita income.

- *Medicaid Eligibility Limit:* This measure examines what level of income families are able to earn and still qualify for Medicaid benefits. More precisely, it calculates the eligibility level for Medicaid as a percent of the poverty line.

Unemployment Insurance Work Transition Programs

When an individual is newly out of work, she encounters an opportunity to invest in her skills and enhance her employability. This is especially true for the significant number of laid-off workers whose chances of being re-employed in their current occupations are not good.

Unfortunately, a potential pool of available resources to support such investment activities — payments from Unemployment Insurance funds — is generally restricted to use as an income support payment. Many states, however, are pursuing new attempts to use these UI funds more creatively, to enhance the employability of recipients, as follows:

- *Work Sharing:* Several states permit partial UI payments in situations where workers are reduced from full-time to part-time work. While not an employment and training activity, such work-sharing efforts maintain an important employment link for workers and minimize the disruptive effects of temporary downturns in normal business cycle patterns.

- *Self-Employment Demonstration:* Several states are permitting workers, on a demonstration basis, to use their UI funds to start new businesses.

- *Employment and Training Diversion:* Some states have channeled a portion of their UI tax receipts into special training funds, and targeted these training dollars to those who are unemployed, threatened with unemployment, or underemployed and in need of such assistance.

- *Re-Employment Bonuses Demonstration:* As a means of placing hard-to-employ individuals in jobs, a few states are experimenting with using UI payments as a wage subsidy to attract new employment opportunities.

Transfer Payment Investment Data

	WELFARE-TO-WORK PROGRAMS			SUPPORT SERVICES			
	Work Supplementation Score (0-2)	Major Ed. & Train. Comp.	Self-Employment Demonstration	Child Care Impact Level Score (-1,0,1)	Addt'l. Child Care Funding	Low-Income Child Care	Medicaid Extension Score (0-2)
Alabama	0			0			0
Alaska	0			1			0
Arizona	0	■		-1			0
Arkansas	0			-1		■	0
California	1	■		1	■		0
Colorado	2			1			0
Connecticut	1	■	■	1	■		1
Delaware	0			1			0
Florida	2			1	■		0
Georgia	0	■		0	■		0
Hawaii	0			-1	■		0
Idaho	0			1			0
Illinois	0	■	■	1			2
Indiana	0			-1			0
Iowa	1	■	■	1			0
Kansas	1			1	■		0
Kentucky	0			-1			0
Louisiana	0			0			0
Maine	2	■		-1	■		0
Maryland	1	■	■	1	■		2
Massachusetts	2	■		1		■	2
Michigan	1	■	■	1			2
Minnesota	1	■	■	0		■	1
Mississippi	0		■	0			0
Missouri	0			1			0
Montana	0			1	■		0
Nebraska	0	■		1			0
Nevada	0			1	■		2
New Hampshire	0			1			0
New Jersey	1	■		0	■		2
New Mexico	0			0	■		0
New York	0	■		1	■	■	2
North Carolina	1			1			0
North Dakota	0			-1			0
Ohio	1			0			2
Oklahoma	2	■		1			0
Oregon	2	■		1			0
Pennsylvania	0	■	■	0			2
Rhode Island	0			1	■		0
South Carolina	0			-1			0
South Dakota	0	■		1			0
Tennessee	0	■		1	■	■	0
Texas	0	■		1			0
Utah	2			1			0
Vermont	2			1			2
Virginia	1	■		1		■	0
Washington	1	■		1			0
West Virginia	0	■	■	1			0
Wisconsin	2	■		1	■		1
Wyoming	0			0			0

For final *Transfer Payment Investment* scores, please see *Policy Index*. For further detail on individual measures, please see the appendix text and *Transfer Payment Investment Data Sources*.

BENEFIT ADEQUACY				U.I. WORK TRANSITION PROGRAMS				
AFDC Family Max. Benefit % P.C Inc.	Rank	Medicaid Elig. Limit %	Rank	Work Sharing	Self-Employment Demonstration	Emp. & Train. Diversion	Re-Employment Bonus Demo.	
16	50	15.6	50					**Alabama**
57	3	79.3	10					Alaska
32	32	53.0	28	■				**Arizona**
25	45	34.1	48					Arkansas
53	4	112.5	1	■		■		**California**
33	30	55.7	25					Colorado
43	14	82.7	8					**Connecticut**
30	34	41.0	38			■		Delaware
27	42	47.5	33					**Florida**
28	40	46.3	36					Georgia
45	11	56.5	23					**Hawaii**
36	23	40.2	40					Idaho
30	35	60.6	19	■			■	**Illinois**
29	37	38.1	42					Indiana
38	20	57.3	22					**Iowa**
38	21	61.5	18	■				Kansas
26	44	35.3	45					**Kentucky**
25	46	30.8	49					Louisiana
49	7	73.8	13					**Maine**
30	36	55.2	26					Maryland
40	18	87.1	5		■			**Massachusetts**
49	8	71.4	15					Michigan
50	5	93.8	3		■			**Minnesota**
18	49	48.7	30					Mississippi
29	38	37.3	44	■				**Missouri**
43	13	54.0	27					Montana
34	25	59.5	20					**Nebraska**
27	41	37.7	43					Nevada
34	26	64.3	16					**New Hampshire**
31	33	74.9	12				■	New Jersey
34	27	34.9	47					**New Mexico**
42	15	81.6	9					New York
28	39	46.3	37					**North Carolina**
41	16	57.6	21					North Dakota
33	29	40.9	39					**Ohio**
37	22	62.3	17	■				Oklahoma
44	12	72.6	14	■	■			**Oregon**
40	19	56.2	24				■	Pennsylvania
48	10	83.8	7					**Rhode Island**
26	43	51.3	29					South Carolina
40	17	48.4	31					**South Dakota**
19	47	46.7	35					Tennessee
19	48	35.3	46	■				**Texas**
49	6	91.7	4					Utah
61	1	99.2	2	■				**Vermont**
32	31	47.4	34					Virginia
48	9	76.1	11	■	■		■	**Washington**
35	24	38.4	41					West Virginia
57	2	84.8	6					**Wisconsin**
34	28	47.6	32					Wyoming

Transfer Payment Investment Data Sources

Welfare-to-Work Programs

Work Supplementation

States that operate a work supplementation program that permits grant diversion, 1987. Score: states receive 2 if statewide, 1 for partial state coverage, 0 if no program.
Source: U.S. Department of Health and Human Services, *Characteristics of State Plans for AFDC, 1988* (Washington, DC: Government Printing Office, 1988).

Major Education and Training Component

States that operate a Work Incentive Demonstration project that offers education and training components, or that have instituted their own, 1987.
Source: U.S. Department of Health and Human Services, *Characteristics of State Plans for AFDC, 1988* (Washington, DC: Government Printing Office, 1988).

Self-Employment Demonstration

States that have applied for waivers to do self-employment demonstrations for welfare recipients, or that are doing such demonstrations through other means, 1987.
Source: Department of Health and Human Services, Family Support Administration, Office of Family Assistance, staff interview, January 1988.

Transitional Support Services

Child Care Impact Level

Change in number of children served with Title XX funds, FY 1987 to FY 1988. Score: state receive a 1 if number of children served increased in FY 1988 compared to FY 1987, 0 if there was no change, -1 if fewer children were served.
Source: Children's Defense Fund, *State Child Care Fact Book 1988* (Washington, DC: Children's Defense Fund, 1988).

Additional State Funding for Title XX Child Care Services

States that allocated additional state funds for child care for AFDC recipients in their FY 1988 budgets, or set aside funds for transitional child care for those leaving AFDC to work, 1988.
Source: Children's Defense Fund, *State Child Care Fact Book 1988* (Washington, DC: Children's Defense Fund, 1988).

Separate State Program for Low-Income Families

States that have gone beyond Title XX and enacted separate state programs to provide child care assistance for low-income working families not eligible for AFDC, 1987.
Source: Children's Defense Fund, *State Child Care Fact Book 1988* (Washington, DC: Children's Defense Fund, 1988).

Medicaid Extension

States that extend Medicaid beyond mandatory nine-month period to families no longer AFDC-eligible because they have earnings above the income disregard, 1987. Score: state receives a 2 if it extends Medicaid for six months, a 1 for three months, and a 0 for no extension.
Source: U.S. Department of Health and Human Services, *Characteristics of State Plans for AFDC, 1988* (Washington, DC: Government Printing Office, 1988).

Benefit Level Adequacy

AFDC Maximum Family Benefit

AFDC benefit level for a family of four as a percent of per capita income, January 1988.

Source: State Policy Research, Inc. "Table H-8," *State Policy Data Book '88* (Alexandria, VA: State Policy Research, Inc., 1988).

Medicaid Eligibility Limit

Eligibility limit for Medicaid as a percent of the typical three-person family poverty line, 1987.

Source: Isaac Shapiro and Robert Greenstein, *Holes in the Safety Net* (Washington, DC: Center on Budget and Policy Priorities, 1988).

Unemployment Insurance Work Transition Programs

Work Sharing

States that permit payment of UI for part-time workers, FY 1988.

Source: Fred Best, *Reducing Workweeks to Prevent Lay-offs* (Philadelphia: Temple University Press, 1988).

Self-Employment Demonstration

States that have allowed, on a demonstration basis, UI recipients to continue to receive and use UI funds while pursuing self-employment, 1987.

Source: U.S. Department of Labor, Office of Legislation and Actuarial Services, staff interview, December 1988.

Employment and Training Diversion

States that have diverted UI funds to support employment and training, 1987.

Source: Evelyn Ganzglass and Maria Heidcamp, "State Strategies to Train a Competitive Workforce," Center for Policy Research paper, National Governors' Association, 1988.

Re-Employment Bonuses Demonstration

States that have used UI funds as bonuses to firms for hiring UI recipients, 1988.

Source: U.S. Department of Labor, Office of Unemployment Insurance, staff interview, December 1988.

Appendix F: The 1988 Report Card

	Performance Index	Business Vitality Index	Capacity Index	Policy Index
Alabama	D	B	D	D
Alaska	D	C	C	C
Arizona	C	B	B	D
Arkansas	D	B	F	B
California	C	A	A	B
Colorado	B	C	A	C
Connecticut	A	B	A	B
Delaware	A	A	A	C
Florida	C	B	C	B
Georgia	C	A	C	D
Hawaii	B	C	B	D
Idaho	D	C	D	F
Illinois	C	D	B	C
Indiana	B	C	D	A
Iowa	C	F	C	C
Kansas	C	C	C	C
Kentucky	D	C	F	C
Louisiana	F	D	D	D
Maine	A	A	D	A
Maryland	A	A	A	B
Massachusetts	A	B	A	A
Michigan	C	C	B	A
Minnesota	B	B	A	A
Mississippi	F	F	F	C
Missouri	B	F	C	C
Montana	D	C	C	C
Nebraska	C	F	C	F
Nevada	A	D	D	F
New Hampshire	A	A	C	D
New Jersey	A	A	A	B
New Mexico	F	A	C	C
New York	C	C	B	A
North Carolina	C	C	C	B
North Dakota	C	C	D	F
Ohio	C	D	B	A
Oklahoma	F	D	D	F
Oregon	C	C	B	B
Pennsylvania	B	D	A	A
Rhode Island	A	D	C	C
South Carolina	C	B	D	A
South Dakota	C	D	D	D
Tennessee	D	C	D	D
Texas	D	B	B	C
Utah	B	D	C	C
Vermont	A	A	B	B
Virginia	B	B	B	D
Washington	B	A	A	C
West Virginia	F	C	F	B
Wisconsin	B	F	B	A
Wyoming	C	D	C	D

Acknowledgments

Project Team

The Corporation for Enterprise Development

Project Director: Mitchell Horowitz
Editor: Janet Topolsky
Data Systems Manager: Gary Prince
Research Assistant: Jonathan Dunn

Rona F. Feit
Robert E. Friedman
Rachel Godsil
Dianna Harrison
Debby Manley
Juliana Prather
William Schweke
Maxine Sutton
Vella Traynham

Mt. Auburn Associates

Andrew Reamer
Peter Kwass
Beth Siegel
Meg Goldman
Ann Greiner

William E. Nothdurft: Writer/Analyst

Special Thanks

Design and Production: Patrice Gallagher and Michele Boris-Lytle
Map Graphics: Scott Johnson
Printing: Reese Press
Release Coordination: Ed Meyers

A special thanks to CfED's Economic Climate Project sponsors and to all those who contributed their time and insights to improving and developing measures for this year's *Development Report Card*.

The funding for CfED's Economic Climate Project, as in years past, comes in equal portions from corporations, labor unions and private foundations, as well as from sales of the *Report Card*. Project funders are listed on the back cover.

The *1989 Development Report Card for the States* is available from The Corporation for Enterprise Development for $25.00. Please contact CfED for bulk order discount prices, or for information about CfED's Speakers Bureau and technical assistance and consulting services.

It is an article of faith in
[the] CFED report that
America's economic future will
be determined...

David Broder
The Washington Post

This Report Card reflects a fine-tuned effort to measure the salient qualities that distinguish business environments among the nation's 50 states.
It asks the right questions. It focuses on the real issues. And it provides a clear reference for states hoping to improve their business environment.

Arthur Levitt, Jr.
Chairman, American Stock Exchange
Chairman, American Business
Conference

Economic Climate Sponsors

Aetna Life & Casualty Foundation
American Federation of State, County & Municipal Employees
American Federation of Teachers
Ameritech Foundation
Atlantic Richfield Foundation
Charles Stewart Mott Foundation
The Joyce Foundation
Public Employee Department, AFL-CIO
Rural Economic Policy Program of the Aspen Institute
for Humanistic Studies and the Ford Foundation
Service Employees International Union

The Corporation for Enterprise Development is a national not-for-profit economic development research and consulting organization.

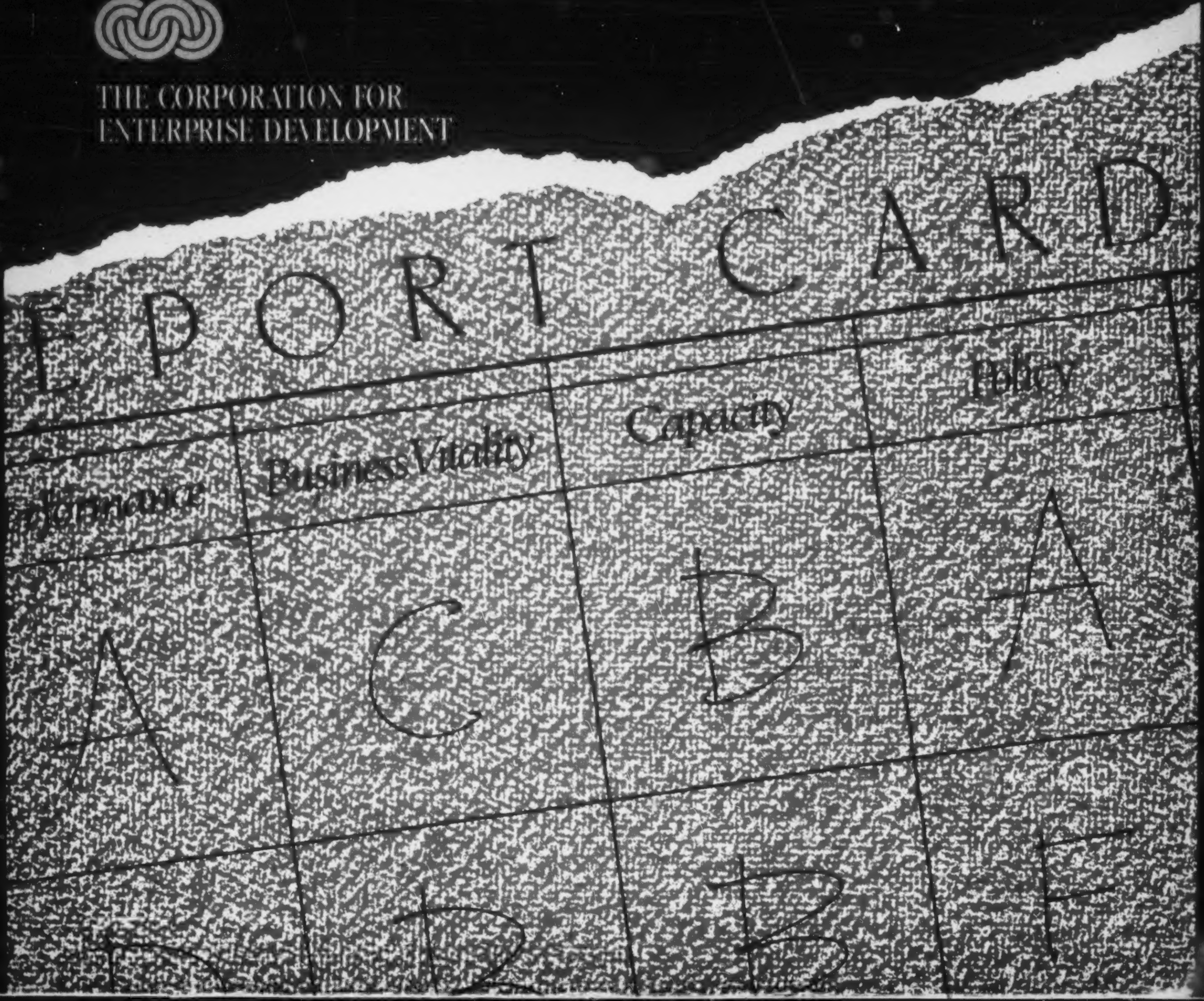
The Corporation for Enterprise Development

1725 K Street, NW
Suite 1401
Washington, DC 20006
202/293-7963

R4225-1U 5/90

The 1990 Development Report Card for the States

THE CORPORATION FOR
ENTERPRISE DEVELOPMENT


EPORT CARD
rformance
Business Vitality
Capacity
Policy
A
C
B
A
D
B
F

The 1990 Development Report Card for the States

April 1990

THE CORPORATION FOR ENTERPRISE DEVELOPMENT
with
MT. AUBURN ASSOCIATES

Copyright April 1990 by The Corporation for Enterprise Development

ISBN: 0-9605804-9-2
ISSN: 1045-4691

The Corporation for Enterprise Development
1725 K Street, NW
Suite 1401
Washington, DC 20006
202-293-7963

Table of Contents

The 1990 Development Report Card for the States 1

The Users' Guide 2

The National Economic Check-Up 6
The 1990 Summary Findings 11

The Economic Performance Index 14
Economic Performance Report Card 15
Economic Performance Index Findings 16
Subindex One: Employment 19
Subindex Two: Earnings and Job Quality 20
Subindex Three: Equity 20
Subindex Four: Environmental Health and Safety 21
Economic Performance Data 24
Economic Performance Data Sources 26

The Business Vitality Index 28
Business Vitality Report Card 29
Business Vitality Index Findings 30
Subindex One: Competitiveness of Existing Businesses 32
Subindex Two: Entrepreneurial Energy 33
Subindex Three: Structural Diversity 35
Business Vitality Data 38
Business Vitality Data Sources 40

The Development Capacity Index 42
Development Capacity Report Card 43
Development Capacity Index Findings 45
Subindex One: Human Resources 48

Subindex Two: Technology Resources 49
Subindex Three: Financial Resources 50
Subindex Four: Physical Infrastructure and Amenity Resources 52
Development Capacity Data 56
Development Capacity Data Sources 60

The State Policy Index 64
State Policy Report Card 65
State Policy Index Findings 67
Subindex One: Tax and Regulatory Environment 70
Subindex Two: Workforce Development 71
Subindex Three: Technology and Innovation 73
Subindex Four: International Marketing 74
Subindex Five: Development Finance 76
Subindex Six: Local Economic Development Assistance 78
Subindex Seven: Infrastructure and Amenities 79
State Policy Data 84
State Policy Data Sources 94

Appendix A: Notes on Methodology and the Development Model . 105

Appendix B: Rural/Urban Disparity Measures 108
Rural/Urban Disparity Data 110
Rural/Urban Disparity Data Sources 111

Appendix C: More on Traded Sector Strength and Structural Diversity 112

Appendix D: The Tax and Fiscal System Index 115
Tax and Fiscal System Data 118
Tax and Fiscal System Data Sources 121

Appendix E: The Transfer Payment Investment Index 122
Transfer Payment Investment Data 124
Transfer Payment Investment Data Sources 126

The State Report Cards 127

Appendix F: The 1989 Development Report Card 153
Please Note: This is last year's Report Card

Acknowledgments 154

The 1990 Development Report Card

	Economic Performance Index	Business Vitality Index	Development Capacity Index	State Policy Index
Alabama	D	B	D	C
Alaska	C	C	B	C
Arizona	C	C	C	F
Arkansas	D	C	F	C
California	B	B	B	B
Colorado	D	B	A	F
Connecticut	A	B	A	B
Delaware	A	C	A	C
Florida	B	B	D	C
Georgia	C	A	D	C
Hawaii	A	D	B	C
Idaho	C	D	C	C
Illinois	D	C	B	B
Indiana	B	B	C	A
Iowa	C	D	D	A
Kansas	C	D	D	B
Kentucky	F	B	F	C
Louisiana	F	F	F	D
Maine	B	A	D	C
Maryland	A	A	A	A
Massachusetts	A	B	A	B
Michigan	C	C	C	A
Minnesota	B	C	A	A
Mississippi	D	C	F	C
Missouri	C	C	C	B
Montana	D	D	C	D
Nebraska	C	D	C	F
Nevada	A	C	C	F
New Hampshire	A	A	C	F
New Jersey	A	A	A	B
New Mexico	F	C	C	C
New York	C	A	B	A
North Carolina	C	A	C	D
North Dakota	D	F	D	D
Ohio	B	D	C	A
Oklahoma	D	F	D	A
Oregon	C	B	A	B
Pennsylvania	B	B	A	A
Rhode Island	A	C	B	B
South Carolina	C	D	D	D
South Dakota	D	C	C	D
Tennessee	D	A	D	D
Texas	D	C	B	D
Utah	B	C	A	C
Vermont	A	A	B	D
Virginia	B	A	B	B
Washington	C	C	A	C
West Virginia	F	D	F	C
Wisconsin	B	D	C	A
Wyoming	C	F	C	D

The Users' Guide

When was the last time you had a check-up?

It's one of those things you never really have time for, isn't it? Making the appointment, waiting for the appointment, waiting for the results, and then paying someone who will tell you, probably, that you're fine . . . but you *should* lose some weight and eat more fiber. Who needs it?

Still, it nags at you. At odd moments, you worry about how long it's been since you had one. There's that annoying little pain you've been putting off. If the doctor found something, you could take care of it before it became a problem. Even if the doctor didn't find anything, you'd know more, worry less, be a little more confident. Life would be better. Less uncertain.

For states, CfED's *Development Report Card* is like a check-up for the body politic. It takes the economic pulse, checks economic blood pressure, measures economic fitness and percent of economic body fat, runs through a battery of diagnostic tests, and inquires about economic lifestyle.

A Thorough Examination

When doctors conduct a check-up, they know no individual diagnostic test can capture accurately and thoroughly the state of someone's health. So, in the absence of some glaring symptom or result, they look for patterns in the results of a wide range of tests — indicators of condition. By asking enough questions, they build a profile and look for warning signs.

So too with the *Development Report Card*. To develop a profile of the economic health of a state — that is, to develop a thorough understanding of its "business climate" — we need to run tests designed to answer four basic questions:

- *How well has the state's economy been performing?* This is the economic equivalent of the doctor's first question: "So, how have you been?" Like the doctor, we want to know something about the state's recent economic history — that is, how well it has been doing at providing people opportunities for employment, income and an improving quality of life. We're looking for symptoms. How we think about the rest of the examination, and what we look for, will be determined in part by the answers to these initial questions.
- *How vital are the businesses in the state?* Businesses are the lifeblood of the economy. Here is where we begin to check blood pressure, pulse, and perhaps take a blood sample. We want to know how strong existing businesses are, something about their composition, how rapidly new businesses are forming to replace declining ones. In short, is the economy anemic or robust?

- *What is the capacity for future growth?* Here's where things get technical, where the doctor begins to test for objective signs of the strength or weakness in the basic systems that keep you going: x-rays illuminate bones and highlight developing arthritis or osteoporosis, cardio-pulmonary tests suggest endurance and the ability to withstand stress, neurological tests probe responsiveness, and more. For state economies, we want to know the same thing: how the basic systems that drive the economy are doing -- the skill levels of the workforce, the availability of capital, technological capacity, physical infrastructure, and amenities. The results of these tests help explain both current economic condition and the state's ability to respond to new challenges.

- *What policies have been established to support business growth and expand individual opportunity?* Your doctor knows that there is a direct relationship between how you live and how you feel, and that the individual who has the greatest influence over your future health is you. Reasonably active people who pay attention to their nutrition are healthier than couch potatoes. In the same way, a state's economic climate is determined — and can be changed — by the commitment the state itself makes to invest in new development capacity and support or broker new initiatives to create growth.

How The Report Card Is Organized

The answers to these questions can be found in the four graded indexes which comprise the *Development Report Card*: *Economic Performance*, *Business Vitality*, *Development Capacity* and *State Policy*. More than 150 individual measures are gathered, first into subindexes and finally into the four indexes. Each state receives a grade — just like in school — based on where it placed, compared to the other 49 states, in each of these "subjects" — *A* for the top ten, *B* for the next ten, *C* for the middle 15, *D* for the next ten, and *F* for the last five.

If you want to know how your state's economy has been performing, the *Economic Performance* index will tell you. To understand how your state received its grade for Performance, the Employment, Earnings and Job Quality, and Equity *sub*indexes will provide the answer. And if you want even more detail, you can examine the individual measures that constitute each subindex.

If, on the other hand, you want to know more about *why* your state got the grade it did in Economic Performance, you can find part of the answer in the *Business Vitality* index. Businesses create jobs; the more vital businesses are, the better the performance of the state's economy.

Similarly, if you want to find out a bit more about why businesses in your state are — or are not — growing, the *Development Capacity* index will describe how well-developed the basic resources needed by business are in your state.

Finally, if you want to know what, if anything, your state is government is doing to improve development capacity, the answers can be found in the *State Policy* index.

None of the four main indexes is more important than another. Indeed, they are closely related: *state policies* affect the levels and priorities of investments in economic development in a state — investments that in part determine that state's *development capacity*. Development capacity (capital, infrastructure, workforce skills, technology, and so forth) affect profoundly the *vitality* of the businesses within the state. And since businesses — not government — are the creators of jobs and income, the vitality of those businesses ultimately determines the state's *economic performance*.

Of course, the utility of the *Development Report Card* depends on its user's willingness to ask questions about the results — just as the usefulness of a check-up depends, in part, on the questions you ask of your doctor. For example:

- If unemployment is low but poverty rates are high, the question to ask is: "How good are the jobs in the state, how are they distributed, and how vital are the industries that provide them?" Answers to these questions are found in the Economic Performance and Business Vitality Indexes.
- If new business creation is high but those businesses are growing slowly or not at all, look at the Development Capacity index to see if the state's capital, technology, workforce and infrastructure resources are sufficient to enable new businesses to grow. And if the scores there are low, look at the Policy index to see if the state is doing anything about increasing capacity in the future.
- If change in the fortunes of a single industrial sector seems to have brought economic calamity upon the state, the chances are the state's economy is too narrowly-based. A look at the structural diversity data in the Business Vitality index will help illuminate the extent of this dependency.
- If two neighboring states with similar economies have markedly different economic performance and business growth patterns, compare their scores in the Development Capacity and State Policy Indexes to discover explanations for the difference.

Science vs. Art

Unlike other business climate indexes, the *Development Report Card* does not attempt to rank states from 1 to 50, for several reasons.

First, like the diagnostic tools available to your doctor, the measures available to diagnose the health of state economies vary in quality and precision. Since, like your doctor, we are driven by what needs to be known, not just what is readily knowable, we sometimes have to resort to indirect ways of getting answers to important questions, because no one has asked or collected data on them before. Assigning, for example, one state a rank of 21 and another 22 on a given test simply exceeds the precision that most business climate measures can sustain. The precision issue is exacerbated by the problem of timeliness. Since the best 50-state data sources tend to be at least a year old, very recent developments may not be reflected in state grades. In fact this year, we have been forced to drop some measures entirely because the information available was so out of date. Therefore, in many cases we can zero in on the standing of a state on a given economic index only after many measures have been examined. And even then, grades, which cover a range of scores rather than numerical ranks, are more appropriate.

Second, we make no single composite numerical list because the uses to which the results are put vary. Just as a broken ankle might be crippling if you work on your feet all day, but only a minor inconvenience if you work at a computer, businesses and their economic climate requirements differ. A single list purporting to be a composite of a state's "overall" business climate would be pointless; what one business finds attractive may be of little interest to another.

Instead, the *Development Report Card* provides a comprehensive assessment of how a state's economy is doing — how economically "fit" it is to face the future — but presents no single "final grade."

Diagnosis, Not Prognosis

Even when all the results are in, a good doctor will seldom make predictions, and it isn't because of a malpractice suit phobia. There are simply too many variables. For one thing, the state of the diagnostic art tends to lag the knowledge needed. Moreover, some unforseen or unknown malady could crop up at any time. And notwithstanding these internal uncertainties, there are always the external ones: you could, for example, be hit by a truck.

Still, the check-up gives you a useful status report, some possible courses of treatment or preventative action, and their probable outcomes. Lose some weight and stop smoking and your risk of heart disease will decrease. Get that soft abdomen tightened up and your back will stop hurting. Invest in the skill levels of your workforce and your businesses will be more productive and your state more attractive to other businesses.

Using The Results

What you do with the results of your check-up is, after all, up to you. Some will slump gratefully back into their La-Z-Boys and fire up the VCR. Others will immediately join fitness clubs and, almost as quickly, abandon them (fitness clubs depend on this). Still others will make concrete, long-term changes in the patterns and habits of their lives. It all depends on the motivation, determination and personal resources each is able, or willing, to marshall — and the urgency with which they view the results.

If the past is any guide, how states use the results of the *Development Report Card* will vary in the same way. Leaders in some states will bask in high Economic Performance grades and choose to ignore lower grades in, for example, Development Capacity — despite the fact that this suggests past growth may not be sustained in the future. Leaders in some states that have made substantial Policy changes and investments in Development Capacity will be criticized for continued low Performance and Vitality grades — despite the fact that it takes years for many of these investments to pay off. Leaders in some states that do poorly across the board will use the results to marshall support for aggressive changes in development policy — while others in the same position will do nothing in the mistaken belief that their economic problems are merely cyclical, when they are in fact structural and permanent.

In the end, the objective is to be helpful, not prescriptive. For governors, legislators, local officials, businesspeople, development professionals — indeed, all those concerned with business growth and individual opportunity — *The Development Report Card for the States* offers not just a comprehensive display of where your state sits compared to the other 49, but also provides answers to a more basic question: *Why?*

The National Economic Check-Up

Whenever a decade ends, retrospection comes with the territory, and 1990 is no exception. For months now the media have been busy trying to capture the real meaning of the Reagan Revolution and the implications of the astonishing "Velvet Revolution" in Eastern Europe, among other developments.

Yet in practical terms, a quieter revolution occurred during the past decade, one that may well have a more lasting impact on the quality of our lives and the prospects for our children than many of these more highly-publicized stories. Fomenting this revolution were two new state discoveries: state policymakers realized that their traditional approach for providing a healthy economy — smokestack chasing — was no longer sufficient, and that the contrasting solutions for our national economic woes posed by Republicans and Democrats did not fit their needs.

So states, acting on their own, began experimenting with new treatments to address their economic ills. What has unexpectedly emerged is a new consensus on how to build and nurture healthy state economies. Call it "Capacity Policy."

The *Development Report Card for the States* continues to document this "quiet revolution" in which the states have emerged as the chief architects of new policies that build the capacity of a state's businesses, citizens, institutions and institutional relationships to ensure that American businesses and people have the resources they need to compete in today's global economy.

The States Seek a Cure

As the decade of the 1980s dawned, American businesses — down on Main Street and out in the industrial districts of the nation — were struggling for survival. By 1980, more than 70 percent of all the goods and services produced in the United States faced stiff foreign competition, compared to only 10 percent in the 1960s. Dramatic changes in communication, transportation and technology had made it possible for goods previously made in America to be produced anywhere in the world where it was the cheapest. Our businesses were losing market share rapidly, not just overseas but at home as well, and our workers were losing jobs. For the first time in our history, it began to look as though we would not be able to promise our children a better life than our own.

States had previously tackled economic development through a very straightforward strategy, dubbed "smokestack chasing," in which they lured out-of-state businesses to relocate or expand within their state through the use of incentives and subsidies. Perhaps the first example of a major state-sponsored smokestack chasing strategy was Mississippi's Balance Agriculture With Industry (BAWI) program, started back in 1936. In the ensuing four decades, smokestack chasing emerged as the linchpin of nearly every state's economic development policy.

At the beginning, it worked. In a growing economy, insulated from international competition, smokestack chasing produced reasonable results. But, in a sense, that U.S. economy was like a patient in isolation, and, once removed, the influence of other factors affected our economic health. By the late 1970s, smokestack chasing was no longer working, and symptoms cropped up. Fewer plants were opening; more were closing or leaving the country for cheaper locations in the Third World. State leaders needed new treatments — and quickly.

State policymakers reacted first by looking to the national government for the cure. But political leaders in Washington, confronted by the unknown — a looming threat of international competition — resorted to fighting amongst themselves, armed with conflicting ideologies. It was *laissez faire* vs. *"playing fair."* Those opposed to public intervention in private markets argued that government had no business interfering with the ebb and flow of economic currents, except through fiscal and monetary policies. Their opponents argued that America's international competitors were not playing fair, and that the U.S. needed a national industrial policy to actively promote selected "high growth" industries and shelter threatened ones.

So, while the conservatives and liberals continued their highly publicized conflicts over ideology in Washington — a debate going back to the New Deal — the states couldn't wait, what with plants closing, unemployment lines growing, and students' test scores falling. Instead, they formed a "third opinion," quietly crafting a new direction in governance that departed dramatically from the national deliberations as well as from what the states had been doing a mere decade ago.

The nation's governors, Republicans and Democrats alike, faced with declining industries, growing unemployment and mounting demands for action considered the options and concluded, in effect, that "left" and "right" were both wrong turns. That is, "keeping government off our backs" wasn't going to help turn industries around or make faltering firms more innovative and productive; neither was a blanket "industrial policy" that insulated them from growing competition or provided unjustifiable public subsidies.

Found: A New Regimen

And so, one by one, beginning in regions where the need was greatest, states began to expand the strengths that the practice of free enterprise provided in our formerly domestic economy into a *competitive enterprise system*, one that helps businesses and people win in an increasingly global economy.

They did it — indeed, are still doing it — by organizing themselves differently and better: by focusing their limited resources on meeting the needs of growing businesses, brokering the assistance of a wide range of private and public sector players, and clarifying the role governments play in a private market economy.

New Targets. The 1980s was the decade in which states began to understand the importance of their existing businesses and new start-up firms. In the midst of widespread industrial restructuring, states recognized if they didn't fight to keep their existing base of businesses, even the most effective smokestack chasing tactics would fail to fill the gap. And states discovered the growing strength of new, young businesses at creating jobs and forming their future industry base.

This shift towards indigenous business development was best captured by a newly-revealed economic fact: 80 percent of net job growth comes from new and existing business growth. Throughout the second half of the decade, we hailed our Yankee entrepreneurship and created new businesses and new jobs at unheard-of rates.

That was the good news. The bad news was that, in the process, we were replacing high-paying jobs with low-paying jobs, also at unheard-of rates, and the gap between rich and poor was widening rapidly in the midst of an employment boom.[1] Common wisdom to the contrary notwithstanding, it wasn't because we were becoming a nation of hamburger-flippers. It was — and still is — because most small firms in the United States, despite their dynamism and seeming flexibility, are slow to adopt new production technologies. They earn less and pay their workers less because their productivity levels don't merit higher earnings and wages.[2]

Some states, recognizing this, understood that the changing nature of manufacturing need not be an excuse to accept lower wages and living standards. They realized that the resources they were using to attract outside businesses could be deployed instead to improve the productivity of what they had. It is for this reason, in particular, that the most aggressive states are working furiously to speed the development, transfer and adoption of advanced production technologies among their smaller, core goods-producing companies.

New Teammates. The scope of the new economic challenge is so great, and the scale of public resources so small, that to create competitive enterprise systems, states have had to develop an entirely new set of relationships both with private and other public players. New alliances — "partnerships," to use the term of the decade — have been crafted by state and local economic development officials with business organizations, banks and other financial institutions, public schools, universities and community colleges, unions, utility companies, local foundations and non-profit organizations, federal agencies, and many others.

New Tasks. In the old world, where the U.S. was the unchallenged leader in a growing world economy, there was little state or local officials needed to do other than try to capture as much of the U.S. growth as possible. But the rise in global competition over the last two decades has changed those rules. With U.S. businesses now finding themselves standing toe-to-toe with tough international competitors, they are finding their ability to compete depends more profoundly than ever before on local services in education, training, business assistance, research, infrastructure and more. Of course, the higher the quality of these services, the more competitive the businesses that depend on them — and the stronger the economies that depend on these businesses.

So states responded by beginning to provide a new service regimen: some old services were discarded, some improved, some delivered using new procedures; other new services were developed. The goal was not merely to rearrange existing effort, it was to help ensure new and enduring growth. Evidence of this response by states is overwhelming. In stark contrast to the smokestack-chasing and revenue-giveaway state policies rife at the outset of the 1980s, by decade's end, state strategies were dramatically amended. Today:

- Forty-four states are stimulating applied research through research centers and research grants.
- Forty-five states help businesses commercialize new technologies or apply state-of-the-art technologies.
- Thirty-five states offer non-traditional development finance instruments, like product development, seed capital and venture capital.
- Forty states employ new financial mechanisms that leverage private resources to help meet business capital needs.

- Forty-seven states have launched specific education reform measures.
- Forty-seven states devote state resources to improving the quality and productivity of their existing workforce.

Is It Strong Enough Medicine?

After a decade of experimental therapies — and, in a number of cases, dramatic results — it is fair to ask whether the states' cure fits the nation's economic ills.

It is clear that *some* states have found remedies for their own economic maladies — we can see their steady movement upward through the four indexes in the *Development Report Card* as they overcome their own barriers to economic growth. Moreover, there are some common components to the treatment regimen these successful states have employed. They include: enhancing the development and application of state-of-the-art production technologies through increased investments in research and development; significant and persistent upgrading of the education and skill levels of the workforce; better access to capital across a wide range of risk levels and financing vehicles; continuous investment in the construction and maintenance of public infrastructure; and a strong commitment to preserving and enhancing "quality of life."

Still, it is too soon to claim that the states have found a cure for the nation. While a growing number of states can boast a laundry list of programs and initiatives aimed at every aspect of the economy, from job retraining to export finance to technology transfer — and however encouraging their successes — the overall *impact* of the strategies developed by even the most innovative and aggressive states is sometimes limited. To achieve impact appropriate to the challenge, a new set of issues must be faced.

Customer Sensitivity. For decades since the New Deal, the business of government has been the administration and delivery of standard programs; it has not been responding to the unique needs of individual clients. This is especially true when it comes to economic development. Typically, instead of having the needs of business define the service government offers, the services offered have defined what needs will be addressed.

This is not surprising. For many services, the government has been operating in the marketplace as a sole source supplier, a monopoly. Such programs are seldom customer-oriented or market-sensitive; these are the deficiencies of any monopoly, private or public. Ironically, in recent years, at the same time they have been urging businesses to become more flexible and market-sensitive, state economic development officials have been hamstrung by agencies that have themselves been inflexible and insensitive.

In fairness to state officials, their options are constrained by the resources their legislatures provide them — typically in the form of narrow program authorizations apportioned to discrete agencies. But to really be of service to their clients, states need to be able to offer easily accessible, customized responses to expressed business needs, not just trot out a catalog of services that may or may not suit. Government efforts that nurture business development require services that are as varied as the businesses they hope to foster — which may demand new models for service delivery.

Scale. State economic development officials have invested a lot of time, resources and personal energy in the creation of new development initiatives, but the "reach" of these initiatives is often modest. Because they are capitalized on an annual basis by legislative appropriations, public programs cannot grow to meet effective demand if it is large or rapidly expanding. Put another way, unlike the private marketplace, where enough demand can attract capital in nearly unlimited amounts, the same demand in the public arena frequently brings forward only a limited supply. The result: even when programs appear effective at providing a quality good or service that is not being produced in the private marketplace, their impact is usually marginal because they are under-capitalized.

Moreover, the simple truth is that a state cannot, alone, modernize *all* its industries. It cannot, and should not, become a banker to fill gaps in private capital markets. It cannot afford, alone, to upgrade the skills of all of its working-age citizens, however urgent the need. And no state can afford to subsidize activities that would have occurred anyway, had it not intervened. What states *can* do to increase the scale of the impact of their economic development initiatives is use their initial investment to leverage greater private and public resources, and act as a broker and catalyst to change patterns of behavior, both in private market transactions and in normally rigid institutions. This attention to scale, to *wholesaling* rather than *retailing* state assistance, is increasingly the hallmark of the policy innovators.

Product Integration. It is increasingly clear that social problems need economic solutions and that economic problems have profound social dimensions. This is why, for example, education, drug abuse and homelessness — among other "social" issues — are so high on the national economic agenda. Yet in most states, agencies and programs designed to address such issues remain rigidly separated from the mission of mainstream economic development activity. This produces two negative results: development programs are irrelevant to those who need them most, and businesses are forced to carry a progressively heavier burden of the cost of remedying (or compensating for) social failures. States that struggle to overcome this dualism — that work to integrate economic and social programs — will, in the end, place higher in the *Development Report Card* than those that do not.

Quality and Accountability. The Policy Index of the *1990 Development Report Card* is a vivid illustration of the explosion of innovations in state economic development during the 1980s. But the *Report Card* tells us very little about exactly *how well* these individual initiatives are doing.

Of course, it can take years to assess the effectiveness of education reform or the viability of a business innovation. What is troubling is that few states even have any formal mechanism for evaluating the results of their initiatives. At best, such formal evaluations are difficult. But today's most innovative initiatives have informal evaluation mechanisms built right into their design. By requiring matching investments from the clients they seek to serve, they create an immediate "market test" for the desirability or value of the initiative. In short, clients either buy in, or they do not — the evaluation is immediate.

A New Technology. All these issues notwithstanding, the "quiet revolution" has changed dramatically, and probably forever, the way state and local officials view the economies their constituents hold them responsible for developing. Ten years ago, states focused the lion's share of their economic development resources on recruiting businesses from somewhere else — or simply waited for The Big Solution from Somewhere Else. But as the 1990s begin, this year's *Development Report Card* demonstrates graphically that states have developed a much wider and more advanced array of techniques for improving the health of their existing businesses and strengthening the basic support systems of their economies. Just as Ford had to scrap the rigid production line technology created by its founder in order to become globally competitive, the states are struggling to invent new *public technologies* — more effective ways of employing their resources to produce competitive economies.

The 1990 Summary Findings

The Industrial Midwest

Patient Status: *Recovering from long decline*
Condition: *Still improving satisfactorily.*

At the beginning of the decade they were on their last legs, gasping for breath — withered lessons of what happens when you ignore the warning signs of impending trouble. The states in America's industrial heartland — from gritty western Pennsylvania to chilly Minnesota — were washed up, the casualties of a post-industrial era. Some wanted to use extraordinary measures to keep them alive; others said no, let them go in peace. Build a memorial.

But the patient was tougher than they thought — and had other ideas. Today, less than 10 years since the recession of the early 1980s nearly did it in, the American "Rust Belt" is resurgent. It may never again be the world's industrial center, but it is showing signs of its old muscle. Pennsylvania this year earns two *A*'s and two *B*'s on the four indexes of the *Report Card*. The other states ringing the Great Lakes earn mostly honor grades, with the occasional slip-up. But there isn't an *F* anywhere in the group. Economic Performance is generally getting stronger and State Policy grades for the Industrial Midwest are all *A*'s and *B*'s, suggesting that they have made investments in technology, infrastructure and skill improvements, as well as innovations in capital markets — long-term commitments to competitiveness that will continue to have benefits well into the future.

The Northeast and Pacific

Patient Status: *Continuing in good economic health*
Condition: *Stable, with some troubling symptoms*

The Northeast and Pacific states continue to be the nation's strongest regions economically. Of the thirteen states with no more than one grade below *B* this year, nine are in the Northeast or Pacific regions — California, Connecticut, Maryland (straight *A*'s), Massachusetts, New Jersey, New York, Oregon and Vermont. Maine and New Hampshire just miss the cut. Many of these states faced economic trouble earlier, and developed innovative solutions sooner, than states anywhere else in the nation. They continue to gather the benefits of that initiative today.

But there are troubling symptoms amid these generally excellent economic signs. For the Northeast, Business Vitality is slowing some, and there are signs of an emerging labor shortage. The combination of the two have already begun to be felt as a slowdown in Massachusetts, and the trend, if it continues, can be expected to cascade through the several states that depend on eastern Massachusetts for economic energy: Maine, New Hampshire and Rhode Island. There are similar signs in New York that may affect both New Jersey and Connecticut, though these two states are better prepared and less dependent than their New England counterparts.

The potential labor shortage is a particularly difficult challenge: because there are fewer new workers entering the labor force, states and private industry are digging deeper into their labor pool and finding illiteracy and alarmingly low skill levels. Overcoming these deficits has become a costly task across the Northeast.

In the Pacific, the trouble signs largely concern Oregon and Washington, and they center around the timber industry. The difficulty these two states face — along with their neighbors — is, in the short run, how to balance environmental and job issues. In the long term, however, the issue seems to be finding ways to add greater value to and, in so doing, generate more wealth from this natural resource.

The South

Patient Status: *Surprisingly healthy, getting healthier*
Condition: *Guarded*

Like the Industrial Midwest, the southern states, from Virginia to Florida and from the Atlantic to the Mississippi, continue to make remarkable progress toward economic health — some for the first time in more than a century. There are few exceptions to this trend.

Of the 13 states that received no *A*'s or *B*'s on any index, only five are from the South. Significant progress is occurring in State Policy — with new investments in education and training, infrastructure and technology — but these are poor states and their resources are limited in the extreme. Though most earn *C*'s on the Policy Index this year, several earn *D*'s and only Virginia earns a *B*. Recovery has been heartening, but there is a long uphill struggle still ahead. For Louisiana, with *F*'s on three indexes and only a *D* in Policy, there is little cheerful news, but plenty of opportunity.

The Plains and Intermountain West

Patient Status: *Weak, static*
Condition: *Critical*

While the states in the northern Midwest have recovered well from the recession of the early 1980s, the thinly-populated states in the Great Plains and Intermountain West have not, with the notable exception of Utah. Their agricultural, energy, mining and timber extraction economies were crippled; only agriculture has begun to show signs of life — and weak ones at that.

These states need intensive care and are not getting it. They have little in the way of Development Capacity and in most states — Iowa and Oklahoma are the major exceptions — few steps have been taken to revive them. All but one of the *F*'s in Policy are concentrated in this region, along with many of the *D*'s.

The only explanation, given these conditions, is that these states are simply waiting for the business cycle to turn upward again, for the boom to blot out the bust. But this bust is persistent. Why? Major structural changes have occurred in these regions' base industries. That means that even if an upturn does occur, jobs in these industries will never return to former levels.

The world has changed, but these states have not. Without substantial change in policy and growth in competitive capacity, these states face a bleak future indeed.

Health Factors in the New Economy

The results in the *1990 Development Report Card for The States*, combined with our three previous annual reports, tell us several important things about the health of the fifty American states and about the specific maladies from which they suffer. We are left with three major impressions about the factors shaping the present and the future condition of state economies:

Development Capacity and Economic Performance Go Hand-in-Hand. The relationship between Economic Performance and Development Capacity is strong and significant. Of the 50 states, 21 have the same grade in Performance as they have in Capacity. Of the remaining 29, fully 19 had only one grade difference between Performance and Capacity. Statistically speaking, the probability of this occurring by chance is next to nothing.

What this suggests is that the job- and earnings-creation potential of any state economy depends directly on the condition of the basic systems that undergird that economy — schools, technology, infrastructure, amenities, capital. The route toward stronger economic performance is significant and sustained investment in development capacity. States that fail to make these investments cannot achieve lasting growth.

Active State Policy Pays Dividends. The pattern of economic recovery over the past decade is too consistent, the results are too tangible for the message not to be clear: investing in yourself pays. The complexity of the development process and our limited knowledge of it make it impossible to model a state's economic development process with much precision. But the advent in some states of aggressive policies that invest in competitive capacities — and the ensuing recovery of those state economies — are too coincident to be a matter of chance.

Appropriate policy had something to do with the fact that the New England states — which first felt the impact of global restructuring and first began to invest in their competitive capacities — recorded the strongest initial recovery and now enjoy the nation's healthiest economies. Policy, once again, had something to do with the fact that the "Rust Belt" states followed closely on the heels of the policy innovations occurring in New England, and now are experiencing an economic resurgence. We expect that Policy will also help reverse the history of chronic economic deprivation in the South, now that southern states are beginning to emerge as the policy innovators of the 1990s.

Of course, how much this recovery is the result of state policies is a matter for debate. Policy probably added only incrementally and only on the margin over a long period of time. Our analysis this year shows a statistically significant relationship, though not an especially strong one, between Policy and Economic Performance, and between Policy and Development Capacity. The major impression we are left with is that the new state economic development policy over the 1980s was only one factor, though a crucial and catalytic one, in improving the economic fortunes of states across the nation.

Policy Innovation Is Apolitical. No political party has a corner on the policy innovation market. The *1990 Development Report Card* makes this clear. Of the twenty states earning *A*'s and *B*'s in State Policy this year, 11 are led by Democratic governors and 9 by Republican governors. By the same token, of the 15 states earning *D*'s and *F*'s, 8 are led by Democratic and 7 by Republican governors.

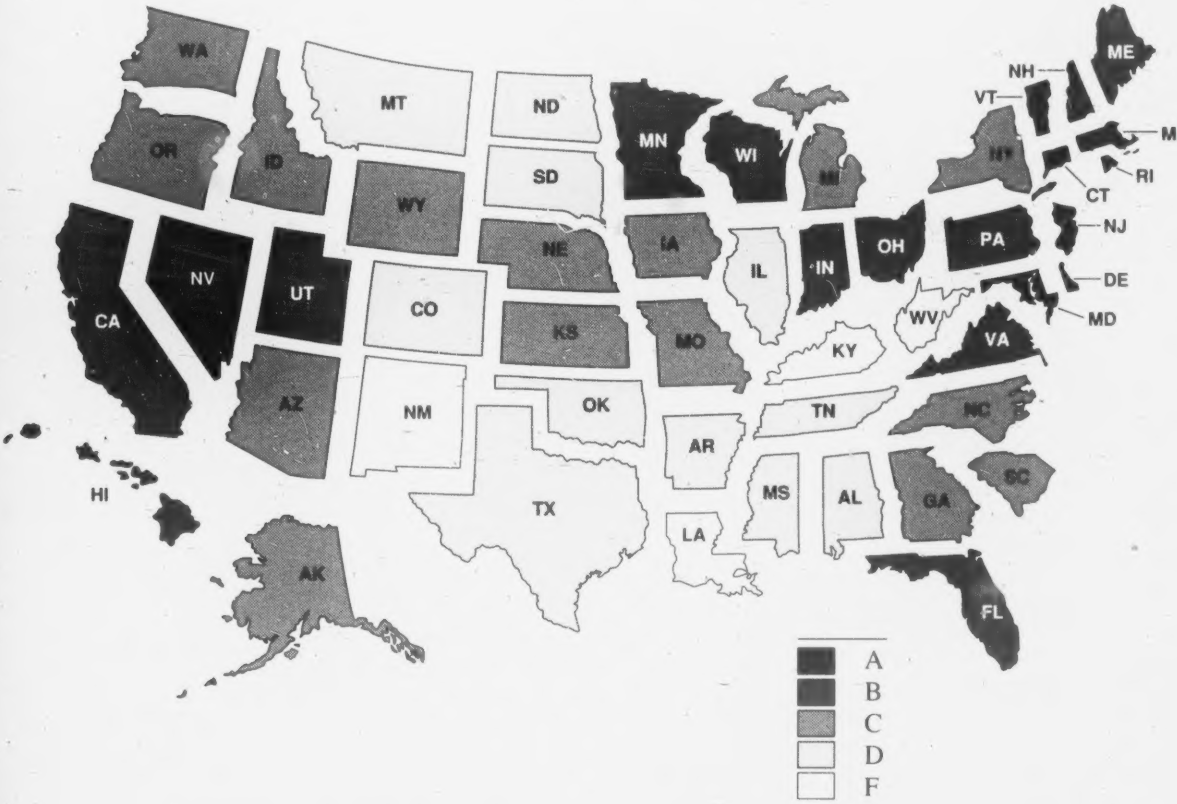
One factor more important than party affiliation in predicting which states will be the policy innovators appears to be the public sector's inclination to be an active and intelligent development partner with the private sector. So, for instance, in Pennsylvania and Indiana — two leading Policy states over the years — when the governorship switched hands from one party to the other, there was no noticeable decline in the existing commitment to seek new and better ways to promote and sustain economic growth. What is heartening to note is that for states lacking in recent innovation, tradition need not determine future policy activity — as shown by Oklahoma and the emergence of southern states as policy leaders. The key seems, rather, to be facing and coming to terms with economic reality.

Endnotes

1. See The Corporation for Enterprise Development, *The 1989 Development Report Card for the States* (Washington, DC: The Corporation for Enterprise Development) pp. 14-15.

2. "Base Modernization: The Opportunity," *TechnEcon*, Spring 1989, pp. 4-5.

1 The Economic Performance Index


WA
OR
CA
NV
ID
MT
WY
UT
AZ
CO
NM
ND
SD
NE
KS
OK
TX
MN
IA
MO
AR
LA
WI
IL
MI
IN
KY
TN
MS
AL
OH
WV
PA
VA
NC
SC
GA
FL
NY
VT
NH
ME
MA
RI
CT
NJ
DE
MD
HI
AK
A
B
C
D
F

Economic Performance Report Card

	Employment Subindex		Earnings & Job Quality Subindex		Equity Subindex		FINAL GRADE	
	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade
Alabama	41	D	40	D	43	D	44	D
Alaska	48	F	32	C	14	B	33	C
Arizona	19	B	23	C	25	C	23	C
Arkansas	31	C	50	F	33	C	43	D
California	15	B	20	B	30	C	18	B
Colorado	44	D	27	C	35	C	39	D
Connecticut	29	C	2	A	3	A	8	A
Delaware	2	A	12	B	6	A	2	A
Florida	4	A	28	C	21	C	17	B
Georgia	15	B	21	C	43	D	28	C
Hawaii	12	B	6	A	2	A	2	A
Idaho	25	C	42	D	27	C	33	C
Illinois	43	D	11	B	47	F	37	D
Indiana	9	A	18	B	14	B	11	B
Iowa	22	C	23	C	46	F	31	C
Kansas	27	C	23	C	16	B	21	C
Kentucky	42	D	48	F	42	D	47	F
Louisiana	50	F	43	D	49	F	50	F
Maine	13	B	21	C	9	A	12	B
Maryland	14	B	7	A	8	A	6	A
Massachusetts	19	B	3	A	4	A	4	A
Michigan	39	D	14	B	38	D	31	C
Minnesota	10	A	10	A	29	C	13	B
Mississippi	38	D	47	F	45	D	45	D
Missouri	33	C	26	C	24	C	29	C
Montana	47	F	45	D	13	B	38	D
Nebraska	23	C	32	C	23	C	26	C
Nevada	4	A	16	B	17	B	10	A
New Hampshire	1	A	4	A	1	A	1	A
New Jersey	28	C	1	A	7	A	9	A
New Mexico	33	C	49	F	50	F	47	F
New York	29	C	13	B	41	D	29	C
North Carolina	3	A	31	C	32	C	21	C
North Dakota	37	D	37	D	26	C	36	D
Ohio	36	D	17	B	12	B	18	B
Oklahoma	46	F	46	F	38	D	45	D
Oregon	26	C	29	C	21	C	25	C
Pennsylvania	24	C	7	A	20	B	15	B
Rhode Island	8	A	5	A	18	B	7	A
South Carolina	11	B	36	D	27	C	24	C
South Dakota	35	C	39	D	37	D	42	D
Tennessee	32	C	37	D	38	D	40	D
Texas	39	D	35	C	35	C	41	D
Utah	21	C	34	C	10	A	18	B
Vermont	6	A	18	B	4	A	5	A
Virginia	7	A	9	A	34	C	14	B
Washington	17	B	30	C	31	C	26	C
West Virginia	49	F	43	D	48	F	49	F
Wisconsin	18	B	15	B	19	B	16	B
Wyoming	45	D	40	D	11	B	35	C

1

PERFORMANCE

Over the years, doctors have devised a simple procedure for recording and analyzing information about your health during a check up. It's called *S.O.A.P* — for Subjective data, Objective data, Analysis, and Plan. The *Development Report Card's* four indexes are designed in much the same way, and the Economic Performance Index is the *S*.

Just as your doctor begins by asking how you've been, and records your response under the *Subjective* observations heading (since the information comes from you rather than a test), the Economic Performance Index looks back at the recent economic history of a state for a sense of how *it's* been. External signs of economic performance — jobs, income, and how well people are doing — are the most obvious symptoms on the health of a state's economy.

The purpose of economic development, after all, is to provide people with the opportunity to attain the elements of what they hope will be "a better life." And, short of winning the lottery, the way most of us do this is through a job. Therefore, we want to know a little bit about the short- and long-term growth of employment in a state, the unemployment rate, and the average duration of unemployment for people who are out of a job.

But just as your doctor asks more probing questions to get a clearer picture of how you've been feeling, we need to know more about the nature of these jobs. We need to know, for example, whether they pay enough for individuals and families to meet their basic needs and still save a little for the future, whether everyone has a fair shot at obtaining them, whether they're available throughout the state or just in major metropolitan areas, and more. And since there is more to life than work, we want to know a little about the quality of people's lives when they're not working too.

By asking how you've been lately, your doctor is looking for a few initial points of reference, however subjective your observations or complaints. It's just the beginning of the check-up, but it's an important beginning because it determines, in part, what the doctor looks for in subsequent tests. Similarly, the Economic Performance Index is just the beginning: it tells us a good deal about what has been happening in a state's economy, thus hinting at the condition of its health, but it doesn't tell us why things are the way they are.

This year, we measure the economic performance of state economies with 17 measures, gathered into four subindexes:

- *Employment*: the extent to which the economy is providing jobs for those who seek them;
- *Earnings and Job Quality*: how well people are compensated for the work they do;
- *Equity*: the extent to which the opportunity to attain a higher standard of living is widely shared; and
- *Environmental Health and Safety*: a rough measure of the environment in which people live when they're not working.

Economic Performance Index Findings

In the absence of some major traumatic event, your general physical health doesn't change dramatically from year to year — a new gray hair, a creaky joint, but otherwise nothing major. The same thing is true of the results of the *Economic Performance* Index this year. The economy as a whole has been relatively stable and, with a few exceptions, things are roughly as they were last year. But beneath the surface features, there are some intriguing — and occasionally troubling — developments.

As was the case last year, states from the Mid-Atlantic to New England dominate the highest grades. For example, though their relative positions have changed, the New England states are still the leaders.

They share the lead with several Mid-Atlantic states, including Delaware, Maryland and New Jersey, and with Hawaii and Nevada, whose tourism strength has combined with strong overall economic health to move them to the top ranks in job creation and earnings.

Massachusetts, however, despite its rise from 8th to 4th on this Index this year, bears watching. Its position in two key Performance indicators — long-term employment growth and unemployment rate — is slipping, and the employment data for Massachusetts prove that this trend is continuing. This is important because much of the growth experienced by neighboring states like Maine, New Hampshire and Rhode Island is spillover from the boom that has been underway in eastern Massachusetts for most of the decade.

This troubling news contrasts with the steady resurgence of most of the Industrial Midwest. From Pennsylvania to Minnesota, every state but one moved up, often sharply, in overall Economic Performance, most of them earning *B*'s this year instead of *C*'s. Only Illinois broke this trend, slipping from a *C* to a *D*. Though their economies were hammered by the recession at the beginning of the decade, these states have recently been earning *A*'s (with occasional *B*'s) in both the Development Capacity and State Policy Indexes. Building on relatively strong capacity assets, activist governors in these states created highly innovative economic development policies, generally with the active participation of the private sector, to restructure and rebuild the basic foundations of their economies. And it's paying off.

Ironically, the same story applies to the states at the bottom of the *Economic Performance* Index — only in reverse. The economic ills of the energy, extraction and agricultural states of the Mountain West and northern Great Plains have continued to shift from acute to chronic even as some of the historically poorest states in the Deep South struggle out of last place. Ten of the 15 states earning *D*'s or *F*'s overall on the Performance Index depend to a significant extent on extraction and energy industries — sectors that are recovering very slowly from the near collapse they experienced a few years ago.

At least part of the explanation for the continued sluggishness of these economies is that they have poorly developed capacity resources and have done little in the way of state policy innovation to change this situation. They are simply waiting for an upturn in the business cycle in economic sectors that are undergoing structural, not just cyclical, change. Mississippi, which this year moves up from the bottom to earn a *D* in Performance, *has* taken steps to build long-neglected capacity resources, a step that is likely to pay additional jobs and earnings benefits in future *Report Cards*.

Employment Subindex Findings

In many respects, the Employment subindex is one of the most dynamic in the entire *Report Card*. The measures of which it is composed — long- and short-term employment growth, unemployment rate, and duration of unemployment — pick up not only general employment trends, but also emerging issues.

For example, while it underscores the improvements in the Industrial Midwest and the dominance of the Northeast, the Employment subindex also pinpoints northeastern states that are beginning to show signs of a slowdown. Connecticut, Massachusetts, New Jersey and New York each lost ground in long- and short-term employment growth and have begun to eat into their backlog of long-term unemployed workers, indicating an emerging labor shortage.

In addition, states whose overall grades in the *Report Card* are average or below — like Florida, Georgia and North Carolina, for example — score well on the Employment subindex because of the overwhelming strength of their major metropolitan centers. Similarly, states like Maine, New Hampshire and Rhode Island score well in Employment, despite their average or below average inherent development capacity, because of the spillover effect from growth in eastern Massachusetts. Evidence that these are local effects, not statewide phenomena, is found in the sharp difference in employment and earnings opportunities between urban and rural areas — something we address in a later subindex.

The Far West is a mixed bag in terms of Employment. Several states — including California, Idaho, Nevada, Utah and Washington — either held their positions or increased slightly over last year, while two states — Arizona and Oregon — dropped sharply, the former due to a broad-based slowdown and the latter due to trouble in the timber industry. Since most of these data were compiled, Washington has weakened somewhat, Utah has continued to improve, and the rest essentially have held their own.

Almost all the states earning the lowest scores in Employment are energy-producing states whose economies had not recovered by 1988 from the ripple effects of the collapse of energy prices. Indeed most of these states were still falling.

Much of the agricultural South escaped *F* grades this year, and Mississippi just missed earning a *C*.

Earnings and Job Quality Subindex Findings

The rankings in this subindex demonstrate, once again, that good jobs at good wages are still to be found predominantly in the complex industrial economies of the Frostbelt, economies with resurgent manufacturers and strong business services and finance sectors. There are only three exceptions to this rule — the "leisure economies" of Nevada and Hawaii, and the nation-state of California, which has become one of America's foremost centers for manufacturing and business services.

The Earnings and Job Quality subindex also captures tangible evidence of the turnaround in the nation's manufacturing heartland. "Rust Belt" state scores in average annual pay growth rose across the board, and often markedly. Michigan, for example, leaped from near last in last year's *Report Card* to 17th this year.

The states at the bottom of this subindex are, as expected, from the chronically poor South and struggling Mountain West. The economies paying their workers the lowest average earnings are concentrated in the Deep South and in the thinly-populated and largely agricultural states of the northern Great Plains. In contrast, the states with the lowest pay *growth* are almost exclusively energy states. States like these, with low pay rates and low pay growth, are often touted as having "good business climates." The irony of this position is that the low earnings rates of these states are part of a pattern of limited economic capacity, not high economic potential.

Equity Subindex Findings

For the most part, the states that lead the Equity subindex this year are not dramatically different from last year — due in part to the lack of new data beyond the mid-1980s on poverty and income distribution. At the top are most of the northeastern states — states where almost anyone prepared for work who wants to work can find a job. Close behind are several states in the Industrial Midwest and a few in the "Developed" West.

However, several states in these geographic areas — including Illinois, Michigan and New York — score poorly on this subindex, despite their overall economic strength, because the opportunity for employment and income does not reach their substantial minority and immigrant populations. Consequently, they find themselves sharing the same rankings as states in the Deep South and Appalachia.

The addition to the *Report Card* this year of a composite indicator of employment and earnings disparity between urban and rural areas within each state draws a sharp distinction between the appearance and reality of opportunity in a number of otherwise stellar states this year. Several states that lead the nation in employment measures, including Georgia, Minnesota, North Carolina and Virginia, are facing sharp disparities between rural and urban areas, disparities that rival states, with historically depressed rural areas — such as Louisiana, Mississippi and North Dakota — are not.

But the most significant finding in the Equity subindex — indeed perhaps the most sobering finding of the entire *Report Card* — echoes the news of last year: the gap between rich people and poor people, as measured by the change in income distribution between 1980 and the mid-1980s, increased in every state in the union but two.

Subindex One: Employment

We begin with the basics, and the most basic measure of the economic health of a state is whether people can find work. We use four direct measures of employment in this subindex: long-term employment growth, short-term employment growth, the unemployment rate, and duration of unemployment.

Long-Term Employment Growth
Short-Term Employment Growth

In any state economy, jobs are being created or eliminated continuously. The more energetic and adaptive the economy, the more this is true.

Measuring job growth does not tell us whether the jobs being created pay as well as those being eliminated, or who is getting the new jobs, or, for that matter, whether employment growth isn't simply a reflection of population growth. But it does tell us how quickly an economy is expanding, a key indicator of economic health. This year, we measure short-term employment growth between 1987 and 1988, as well as long-term employment growth between 1984 and 1988. As a result, we can explore both the general trend within a state and the effect of recent events on that trend.

Unemployment Rate

Even if a state's economy is expanding, some people will be left behind. The most accepted measure of the mismatch between the numbers of jobs and job-seekers is the unemployment rate — the number of people who are looking for work or waiting to be called back to a job from which they have been laid off.

Here too, the measure is imperfect. It doesn't tell us anything, for example, about those who have never been a part of the labor force or who have become so discouraged by their inability to find work that they have stopped looking entirely. But despite these flaws, this is the best measure currently available.[1]

Unemployment Duration

We need to know more than simply *how many* people are unemployed; we need to know *how long* they have been in that position. Unemployment can occur for a variety of reasons, not all of them negative. Indeed, a worker's ability to move from one job to another can be a measure of the range of opportunity the state offers or the flexibility of the worker's skills. Long-term unemployment, on the other hand, may indicate that the economy is failing to produce jobs, that the jobs being created and the skills of the workforce don't match, or that the hiring of some kinds of workers is being restricted in some way. This indicator measures those who have been jobless for more than 27 weeks — the point at which unemployment benefits normally expire. Because only those still looking for work are counted as unemployed, we do not have a way to identify those who have given up and dropped out.

Subindex Two: Earnings and Job Quality

The issue of whether the restructuring of America's economy is replacing well-paid, low-skill jobs with low-paying, moderate-skill jobs is of critical importance in evaluating the national economy's performance. The purpose of this subindex is to explore this issue — that is, to augment the Employment subindex to go beyond *how many* jobs are being created to explore *how good* they are — in terms of wages and benefits. This subindex measures average annual pay, recent changes in average annual pay, and the only job-related fringe benefit for which data are readily available, health coverage.

Average Annual Pay

Average annual pay — that is, the total annual pay of all employees covered by unemployment insurance in a state, divided by the average monthly number of employees — provides a clearer picture of what working people can expect to earn from their jobs than does another commonly used figure — personal income per capita. That's because the first measure is based only upon those who actually are working in the state, not the total number of people in the state — and because it excludes income received off the job. Moreover, these payroll data include bonuses, tips and gratuities, paid vacation, and employer contributions to deferred compensation plans, among other things — not just wages.

With few exceptions, all full-time and part-time employees in covered firms are reported, including production and sales workers, corporation officials, executives, supervisory personnel and clerical workers. Excluded, due to limits of the available data, are agricultural workers on small farms, most railroad employees, most non-profit organization employees, self-employed workers and all members of the Armed Forces.

Average Annual Pay Growth

This measure converts the point-in-time "snapshot" of average annual pay into trend data, measuring the change from 1987 to 1988. Like employment growth, this measure aims to portray how much improvement, if any, is occurring in each state's economy. We considered including long-term pay growth as well, but found such a high correlation between the two that they were redundant and would have overweighted this aspect of job quality.

Health Coverage

If one of the objectives of economic development is to help individuals achieve a better life, then we need to know something about the *quality* of the jobs that the economy is creating. Many of the new jobs being created in today's economy are not providing the benefits that American workers have come to expect as part of their compensation for working. Understanding the extent to which state economies are meeting the benefit needs of their citizens is one important clue to that quality, and it varies significantly from state to state.

Of these benefits, employer-sponsored health coverage is perhaps the most important. In 1986, 36.5 percent of the civilian population had no private or employer-sponsored health coverage. Moreover, 17.8 percent of that population had no health coverage whatsoever, including such publicly-supported coverage as Medicare. This latter figure is up sharply from 15.5 percent only four years earlier.

Subindex Three: Equity

Asking the question, "How is the economy doing?" begs another question: "For whom?" Any evaluation of a state economy must be based not just upon the gross employment and income in the state, but upon the distribution of opportunities to gain employment and income as well. An economy is only as strong as its weakest link. The distribution of opportunity — how widely that opportunity is shared — has significant effects on how vital and attractive a state's economy seems to others, because the effects of inequitable distribution are often only too visible: poverty, crime, blighted neighborhoods, social discord, diminished productivity and wasted human talent.

Thus, the performance of a state economy is determined in no small part by how economic change affects the least advantaged, and by the extent to which the best jobs in the state are equitably distributed among its populace. To measure how widely-shared economic opportunity is in a state, we look at the poverty rate, the distribution of income among the people in the state, the change in the distribution of income, and rural/urban disparities in employment, earnings, and poverty rate.

Please note that many of the data in these measures are unchanged this year because the 1987 Current Population Survey was not released in time to be incorporated.

Poverty Rate

The number of individuals in a state who live below the federally-established poverty line presents a concrete measure of performance in general, and equity in particular. An economy with a high percentage of people below this line — whether they work or not — is not fulfilling its basic purpose of providing people with opportunities for a better life.

Income Distribution

To measure how income is spread within a state from the most wealthy to the most poor, we compare the median income of the wealthiest 20 percent of families with the median income of families in the poorest 20 percent. The greater the variation, the less equitable the distribution of income.

Income Distribution Change

To capture a sense of whether economic development is increasing or decreasing the opportunities people have to obtain the elements of a better life, we examine how the ratio between the median income of families in the top 20 percent and the bottom 20 percent (in terms of family income) changed from 1980 to mid-decade.

Rural/Urban Disparity

One of the more striking findings in last year's *Report Card* was that rural states in virtually every region tended to fare less well than their urbanized neighbors. Many state economic development officials have noted that the same phenomenon exists within states — that states often have two economies, one urban and generally thriving, the other rural and generally stagnant or declining. There are obvious exceptions: many central cities at the heart of booming metropolitan areas are economic wastelands, while some rural areas have found ways to diversify and thrive. This year we have developed a composite measure for these disparities composed of long-term employment growth, short-term employment growth, the unemployment rate, average earnings and earnings growth, and the poverty rate.

Subindex Four: Environmental Health and Safety

As the structure of the American economy has changed, the things that are most important to the people and businesses in that economy have also changed. Increasingly, "quality of life" is a driving factor in the decisions people make about where to raise a family or build a business.[2] But what does it mean? Clearly, when people talk about the quality of life in a state, they are talking about more than just environmental amenities. People include a wide but still unfocused array of social, economic and psychological factors as well, from the state's efforts to enhance and protect the environment, to educational quality, cultural opportunities, public facility maintenance, and, simply, whether the area seems safe. Some of these concerns are measured elsewhere in the Capacity and Policy Indexes. But here, as with other Performance Index measures, we are concerned about *outputs* — in this case: environmental quality and health and safety.

As in previous years, we have concluded that the data available to measure these outputs simply do not accurately portray the most important elements of quality of life. Particularly with respect to basic environmental issues — drinking water quality, for example — the available data are either fragmentary or misleading. Moreover, the available measures tend to illustrate population density, rather than environmental quality. Consequently, we have chosen to display the results of the measures we *were* able to compile with some confidence as an Environmental Health and Safety subindex. But, as in prior years, we do *not* include them in the calculation of the state Economic Performance grade.

Environmental Quality

An economy that produces a high degree of environmental pollutants is "attractive" neither to new business nor to workers and families. To gauge the environmental quality of states, we developed a composite measure, that includes:

- *Air Quality*
- *Superfund Dumpsites*
- *Hazardous Waste Generation*
- *Surface Water Discharge*

We use these factors not because they represent the full range of environmental quality concerns, but because they are the only factors for which we can collect consistent state-by-state nationwide data. Many other factors are needed to portray accurately the quality of the environment. As it currently stands, these measures tend more to portray how densely populated a state is, not how high or low its environmental quality is.

Health and Safety

At the most rudimentary level, the quality of life in a state or region can be gauged by whether people, adults and children alike, are safe from harm. To obtain an admittedly rough understanding of general health and safety, we examine two variables:

- *Infant Mortality:* Infant mortality rates are commonly used to measure the health of the population for reasons that go beyond the death of infants. Infant mortality correlates highly with the health and nutrition of the mother, which, in turn, provides us with some insight about living conditions for families as well as how accessible prenatal care services are.
- *Crime Rate:* The higher the crime rate — whether it affects people personally or not — the less safe people are likely to feel. This crime rate, drawing on FBI data, addresses the most serious crimes: murder, rape, robbery, assault, burglary, larceny and motor vehicle theft.

Endnote

1. See Terry F. Buss, "Unemployment Rates and Their Implications for Human Resource Planning," *Journal of Economic and Social Measurement* 14 (1986).

2. See, for example, Roger Schmenner, "Location Decisions of Large Firms: Implications for Public Policy," *Commentary*, January 1981; and Patricia L. Braden and Susan R. Rideout, "Location Decision-Making in Export-Oriented Business and Industry," unpublished paper, University of Michigan 1978.

Economic Performance Data

	EMPLOYMENT								EARNINGS & JOB QUALITY									
	Emp. Growth Long-Term		Emp. Growth Short-Term		Unemployment Rate		Unemployment Duration		Average Annual Pay		Avg. Annual Pay Growth		Health Coverage		Poverty Rate	
	%	Rank	%	Rank	%	Rank	%	Rank	$	Rank	%	Rank	%	Rank	%	Rank
Alabama	9.99	20	0.17	43	7.2	41	15.7	41	19,003	35	3.7	30	66.5	44	21.5	47
Alaska	-1.35	47	-0.90	48	9.3	48	15.4	40	28,033	1	0.1	50	71.6	38	10.4	8
Arizona	13.14	11	2.58	19	6.3	35	9.0	15	20,383	23	3.9	27	73.5	31	13.4	26
Arkansas	9.39	25	3.39	11	7.7	44	13.2	35	17,023	46	3.0	43	65.3	47	22.4	48
California	14.28	8	2.74	17	5.3	26	9.8	19	24,124	7	4.4	21	67.9	43	13.4	26
Colorado	-1.67	48	1.66	31	6.4	37	16.9	47	21,472	14	3.1	41	74.1	29	10.8	10
Connecticut	6.27	35	-0.06	45	3.0	3	10.0	21	26,244	3	7.9	2	80.2	9	7.2	2
Delaware	16.96	4	5.30	2	3.2	5	10.2	24	21,977	10	5.8	9	76.1	24	11.3	14
Florida	20.48	1	4.35	6	5.0	23	6.9	8	19,520	28	4.5	18	70.1	39	13.3	25
Georgia	15.83	7	4.12	7	5.8	29	10.5	27	20,501	20	4.3	22	73.3	33	15.6	36
Hawaii	12.36	12	1.42	33	3.2	5	9.0	15	20,444	21	7.1	4	80.6	6	9.9	6
Idaho	4.20	39	2.76	16	5.8	29	8.7	13	17,648	44	3.4	35	72.5	35	16.4	40
Illinois	5.50	36	0.86	39	6.8	39	16.1	43	23,606	8	6.1	8	75.4	26	15.0	33
Indiana	11.45	13	3.53	10	5.3	26	5.3	3	20,437	22	3.8	28	78.0	15	12.2	19
Iowa	9.22	28	4.67	4	4.5	17	11.9	33	17,928	43	3.7	30	80.4	8	16.5	41
Kansas	7.33	32	0.91	38	4.8	20	8.6	12	19,030	34	3.3	36	80.1	11	11.2	12
Kentucky	1.35	43	2.54	20	7.9	46	15.8	42	18,545	39	3.0	43	65.3	47	18.5	44
Louisiana	-2.06	49	-0.17	46	10.9	50	20.7	49	19,330	30	3.3	36	65.0	49	20.8	46
Maine	11.41	14	2.67	18	3.8	10	10.3	26	18,347	40	5.2	15	76.8	20	11.1	11
Maryland	10.98	17	2.26	22	4.5	17	8.7	13	22,500	9	5.5	10	78.9	14	8.5	3
Massachusetts	4.79	37	1.81	29	3.3	7	6.7	7	24,143	6	7.4	3	80.5	7	8.8	4
Michigan	9.64	24	1.76	30	7.6	43	16.1	43	24,193	5	4.8	17	76.2	23	14.4	30
Minnesota	7.05	33	4.39	5	4.0	14	6.6	6	21,481	13	5.0	16	79.9	12	11.5	15
Mississippi	9.39	25	1.26	35	8.4	47	11.6	32	16,522	48	3.7	30	62.4	50	25.6	50
Missouri	11.09	16	0.78	40	5.7	28	15.2	39	20,295	24	3.5	33	75.8	25	14.3	29
Montana	0.00	45	0.27	42	6.8	39	16.2	46	16,957	47	3.2	40	73.5	31	16.3	39
Nebraska	3.55	40	2.07	24	3.6	8	9.0	15	17,190	45	4.0	25	77.3	19	14.6	31
Nevada	20.35	2	6.51	1	5.2	25	7.6	10	20,556	19	5.3	12	77.7	18	12.4	21
New Hampshire	18.44	3	3.14	13	2.4	1	5.5	4	20,749	18	6.9	7	84.4	2	5.6	1
New Jersey	6.63	34	0.55	41	3.8	10	9.3	18	25,748	4	8.0	1	80.7	5	9.5	5
New Mexico	9.29	27	2.09	23	7.8	45	10.7	28	18,259	41	2.8	45	66.3	46	20.7	45
New York	8.81	30	1.06	37	4.2	15	10.1	22	26,347	2	7.0	6	72.3	36	15.2	34
North Carolina	13.93	9	2.94	14	3.6	8	6.3	5	18,637	38	4.3	22	74.5	28	14.0	28
North Dakota	0.97	44	-0.32	47	4.8	20	10.2	24	16,508	49	2.2	48	80.8	4	14.9	32
Ohio	8.66	31	2.48	21	6.0	33	17.8	48	21,500	11	4.5	18	76.5	21	12.4	21
Oklahoma	-0.97	46	-1.24	50	6.7	38	13.7	37	19,098	32	2.6	47	69.6	40	15.5	35
Oregon	9.68	23	1.92	26	5.8	29	10.1	22	19,637	27	4.0	25	73.0	34	12.6	24
Pennsylvania	10.16	19	2.83	15	5.1	24	13.6	36	21,485	12	5.3	12	80.2	9	12.4	21
Rhode Island	9.91	21	2.00	25	3.1	4	2.3	1	20,206	25	7.1	4	85.0	1	11.2	12
South Carolina	16.57	5	3.95	8	4.5	17	11.4	30	18,009	42	4.2	24	73.7	30	17.6	42
South Dakota	4.56	38	1.18	36	3.9	12	15.0	38	15,424	50	3.1	41	77.9	16	16.2	37
Tennessee	9.06	29	1.47	32	5.8	29	11.3	29	19,209	31	3.8	28	68.0	42	17.8	43
Texas	3.49	41	1.88	27	7.3	42	11.4	30	21,130	15	3.3	36	66.5	44	16.2	37
Utah	9.73	22	1.83	28	4.9	22	7.5	9	18,910	36	3.3	36	76.4	22	11.9	18
Vermont	13.33	10	1.40	34	2.8	2	3.6	2	18,640	37	5.3	12	77.9	16	10.2	7
Virginia	10.32	18	3.62	9	3.9	12	8.5	11	21,052	16	5.5	10	79.4	13	10.6	9
Washington	15.94	6	3.26	12	6.2	34	9.8	19	20,806	17	3.5	33	71.9	37	11.7	16
West Virginia	2.61	42	0.00	44	9.9	49	26.6	50	19,341	29	2.8	45	68.2	41	22.8	49
Wisconsin	11.34	15	5.25	3	4.3	16	16.1	43	19,743	26	4.5	18	81.3	3	11.8	17
Wyoming	-9.21	50	-0.91	49	6.3	35	12.6	34	19,097	33	1.5	49	74.6	27	12.3	20

Please refer to *Economic Performance Data Sources* and *Economic Performance Index* text for further details on individual measures.

EQUITY						ENVIRONMENTAL HEALTH AND SAFETY*														
						Environmental Quality								Health and Safety				
Income Distribution		Income Dist. Change		Rural/Urban Disparity		Air Quality		Superfund Dump. per million pop.		Hazardous Waste Tons per capita		Surface Water Discharge		Infant Mortality per 100M births		Crime Rate per 100 pop.		
Score	Rank	%	Rank	Score	Rank	Score	Rank	Sites	Rank	#	Rank	%	Rank	Deaths	Rank	Rate	Rank	
11.94	49	-27	38	97	9	0.30	18	2.94	12	1.6	43	7.5	20	12.2	47	4.5	21	**Alabama**
8.79	28	13	2	210	43	0.45	27	1.90	5	0.09	1	1.5	5	10.4	34	4.9	27	Alaska
8.59	23	-20	25	157	29	1.12	45	2.66	10	0.3	7	9.1	28	9.5	20	7.4	48	**Arizona**
10.03	39	-4	3	170	32	0.00	1	4.19	26	1.6	42	14.0	41	10.3	33	4.2	16	Arkansas
8.89	30	-14	14	209	42	1.45	50	3.18	17	0.6	20	7.4	19	9.0	14	6.6	44	**California**
8.77	26	-37	46	224	48	0.59	31	4.85	32	0.46	14	4.2	12	9.8	26	6.1	40	Colorado
7.17	4	-14	14	99	10	0.84	40	4.36	29	1.25	34	15.8	44	8.8	11	5.0	29	**Connecticut**
7.46	6	-8	10	103	12	0.86	41	32.61	50	1.39	39	13.9	40	11.7	43	4.7	23	Delaware
8.96	31	-17	19	111	16	0.38	25	4.24	27	0.24	4	10.0	32	10.6	38	8.9	50	**Florida**
9.59	36	-20	25	214	46	0.41	26	2.09	6	0.53	17	6.9	18	12.7	48	6.3	41	Georgia
7.38	5	2	1	105	13	0.00	1	5.54	33	0.16	2	7.7	22	8.9	13	5.9	38	**Hawaii**
8.18	16	-14	14	190	37	0.19	14	4.01	23	1.29	35	1.6	6	10.4	34	3.9	9	Idaho
9.79	38	-29	41	197	39	0.65	34	3.37	20	1.33	37	13.2	38	11.6	42	5.6	35	**Illinois**
7.70	8	-33	43	100	11	0.33	21	6.69	37	1.75	46	22.7	47	10.1	30	4.1	13	Indiana
10.06	41	-63	50	111	16	0.00	1	8.12	40	0.65	21	5.1	15	9.1	15	4.0	12	**Iowa**
7.75	10	-20	25	188	36	0.19	14	4.44	30	1.00	29	3.6	11	9.5	20	4.8	24	Kansas
9.05	32	-28	40	153	26	0.35	23	4.56	31	1.23	33	2.9	8	9.7	24	3.1	4	**Kentucky**
12.71	50	-46	48	197	39	0.12	11	2.47	8	3.05	50	11.6	35	11.8	45	5.7	36	Louisiana
7.50	7	-20	25	93	7	0.17	13	6.74	38	0.26	5	7.7	22	8.3	4	3.5	7	**Maine**
8.34	19	-17	19	76	6	1.01	43	2.21	7	0.67	23	10.2	33	11.5	41	5.7	36	Maryland
8.12	14	-13	13	68	5	1.25	46	3.76	22	0.73	25	8.1	25	7.2	1	4.9	27	**Massachusetts**
10.08	42	-44	47	110	15	1.06	44	8.80	42	1.29	35	29.6	50	10.7	39	6.0	39	Michigan
8.34	19	-20	25	242	49	0.60	32	9.42	44	0.46	14	12.5	36	8.7	9	4.3	19	**Minnesota**
10.11	43	-7	8	213	45	0.00	1	1.14	2	1.06	30	2.4	7	13.7	50	3.5	7	Mississippi
8.36	22	-11	12	186	34	1.00	42	4.12	25	1.13	32	8.6	26	10.2	31	4.8	24	**Missouri**
9.18	33	-4	3	51	3	0.00	1	12.36	46	0.77	27	8.9	27	10.0	29	4.2	16	Montana
8.69	25	-17	19	131	21	0.13	12	3.14	15	0.27	6	2.9	8	8.6	7	4.1	13	**Nebraska**
8.22	17	-33	43	56	4	0.79	39	-0.00	1	0.37	10	11.1	34	9.6	22	6.4	43	Nevada
5.98	1	-5	6	93	7	0.34	22	14.19	47	0.41	12	0.0	1	7.8	2	3.3	6	**New Hampshire**
8.34	19	-15	18	46	2	1.32	48	14.34	48	1.74	44	18.6	46	9.4	19	5.2	30	New Jersey
11.72	48	-34	45	219	47	0.32	20	6.67	36	0.38	11	2.9	8	8.1	3	6.6	44	**New Mexico**
10.42	45	-29	41	124	20	1.30	47	4.26	28	0.52	16	12.7	37	10.7	39	6.3	41	New York
8.62	24	-19	24	211	44	0.27	17	3.27	18	0.53	17	6.1	17	11.9	46	4.8	24	**North Carolina**
8.78	27	-5	6	199	41	0.00	1	2.98	14	0.35	9	4.3	13	8.7	9	2.7	3	North Dakota
8.03	12	-17	19	131	21	0.49	29	2.97	13	1.74	44	22.8	48	9.3	18	4.6	22	**Ohio**
10.26	44	-20	25	165	30	0.53	30	3.36	19	0.72	24	5.8	16	9.6	22	5.5	33	Oklahoma
8.31	18	-24	35	106	14	0.47	28	2.57	9	0.33	8	0.0	1	10.4	34	7.0	46	**Oregon**
8.11	13	-21	32	150	24	0.65	34	8.13	41	1.47	40	14.4	42	10.4	34	3.1	4	Pennsylvania
8.12	14	-25	37	150	24	0.64	33	9.13	43	1.56	41	27.0	49	8.4	5	5.2	30	**Rhode Island**
10.03	39	-7	8	119	18	0.00	1	6.13	34	1.07	31	7.5	20	12.7	48	5.4	32	South Carolina
9.24	34	-20	25	190	37	0.00	1	1.41	3	0.21	3	0.0	1	9.9	28	2.5	2	**South Dakota**
9.67	37	-18	23	166	31	0.78	38	2.68	11	2.7	48	8.0	24	11.7	43	4.4	20	Tennessee
10.42	45	-14	14	186	34	0.72	37	1.67	4	2.03	47	4.6	14	9.1	15	8.0	49	**Texas**
6.67	2	-8	10	153	26	1.38	49	6.55	35	0.58	19	16.7	45	8.8	11	5.5	33	Utah
7.07	3	-4	3	147	23	0.00	1	14.60	49	0.41	12	13.5	39	8.5	6	4.2	16	**Vermont**
8.87	29	-24	35	264	50	0.36	24	3.73	21	0.75	26	9.4	29	10.2	31	4.1	13	Virginia
9.35	35	-23	34	172	33	0.71	36	9.48	45	1.35	38	15.6	43	9.7	24	7.1	47	**Washington**
10.73	47	-60	49	119	18	0.26	16	3.16	16	2.95	49	9.9	31	9.8	26	2.2	1	West Virginia
7.81	11	-22	33	156	28	0.31	19	8.11	39	0.65	21	9.8	30	8.6	7	3.9	9	**Wisconsin**
7.71	9	-27	38	27	1	0.00	1	4.08	24	0.97	28	0.0	1	9.2	17	3.9	9	Wyoming

*Information subindex only. This data was not used to calculate the *Economic Performance Index* grades.

Economic Performance Data Sources

Subindex One: Employment

Long-Term Employment Growth

Employment of workers on non-agricultural payrolls, 1984-1988. Percent change.
SOURCE: Bureau of Labor Statistics, *Local Area Unemployment Statistics*, unpublished data diskette, 1989.

Short-Term Employment Growth

Employment of workers on non-agricultural payrolls, 1987-1988. Percent change.
SOURCE: Same as Long-Term Employment Growth.

Unemployment Rate

Percent of labor force unemployed, 1988.
SOURCE: Same as Long-Term Employment Growth.

Unemployment Duration

Percent of unemployed who were unemployed more than 27 weeks, 1988.
SOURCE: U.S. Department of Labor, *Geographic Profile of Employment and Unemployment*, (Washington, DC: Government Printing Office, 1989).

Subindex Two: Earnings and Job Quality

Average Annual Pay

Average annual pay, all workers and proprietors, by location of establishment, 1988. Dollars.
SOURCE: Bureau of Labor Statistics, press release, August 29, 1989.

Average Annual Pay Growth

Change in average annual pay, all workers and proprietors, by location of establishment, 1987-1988. Percent.
SOURCE: Same as Average Annual Pay.

Health Coverage

Percent of the non-elderly population covered by primary health plan, 1986.
SOURCE: Employee Benefit Research Institute, *Uninsured in the United States*, (Washington, DC: Employee Benefit Research Institute, October 1988).

Subindex Three: Equity

Poverty Rate

Persons living in household units with incomes below the poverty line, 1984-86. Percent of state population.
SOURCE: Robert D. Plotnick and Sheldon Danziger, "Poverty Rates by State in the Mid-1980's: An Update," *Focus*, Fall 1988.

Income Distribution

Ratio of median income of families in the top quintile (family income) to median income of families in the bottom quintile, over the period 1984-1986.
SOURCE: Sheldon Danziger and Jon Haveman, University of Michigan, unpublished tables, 1988. Calculations based on merged Current Population Survey data tapes from March 1985, 1986, 1987.

Income Distribution Change

Change in ratio of families in the top quintile (family income) to median income of families in the bottom quintile to median income of bottom quintile, from 1980 ratio to 1984-86 ratio. Percent.
SOURCE: Same as Income Distribution.

Rural/Urban Disparity

Composite index of six economic performance measures contrasting non-metropolitan and metropolitan counties within a state. Measures include long-term employment growth (1979-87), short-term employment growth (1986-87), unemployment rate (1987), average earnings (1986), earnings growth (1979-86) and poverty rate (1984-86). Score.
Source: Mitchell Horowitz and Jonathan Dunn, "The 1989 Rural Economic Climate Report," *The Entrepreneurial Economy Review*, September/October 1989.
Note: See *Appendix B: Rural/Urban Disparity Measures* for more details.

Subindex Four: Environmental Health and Safety

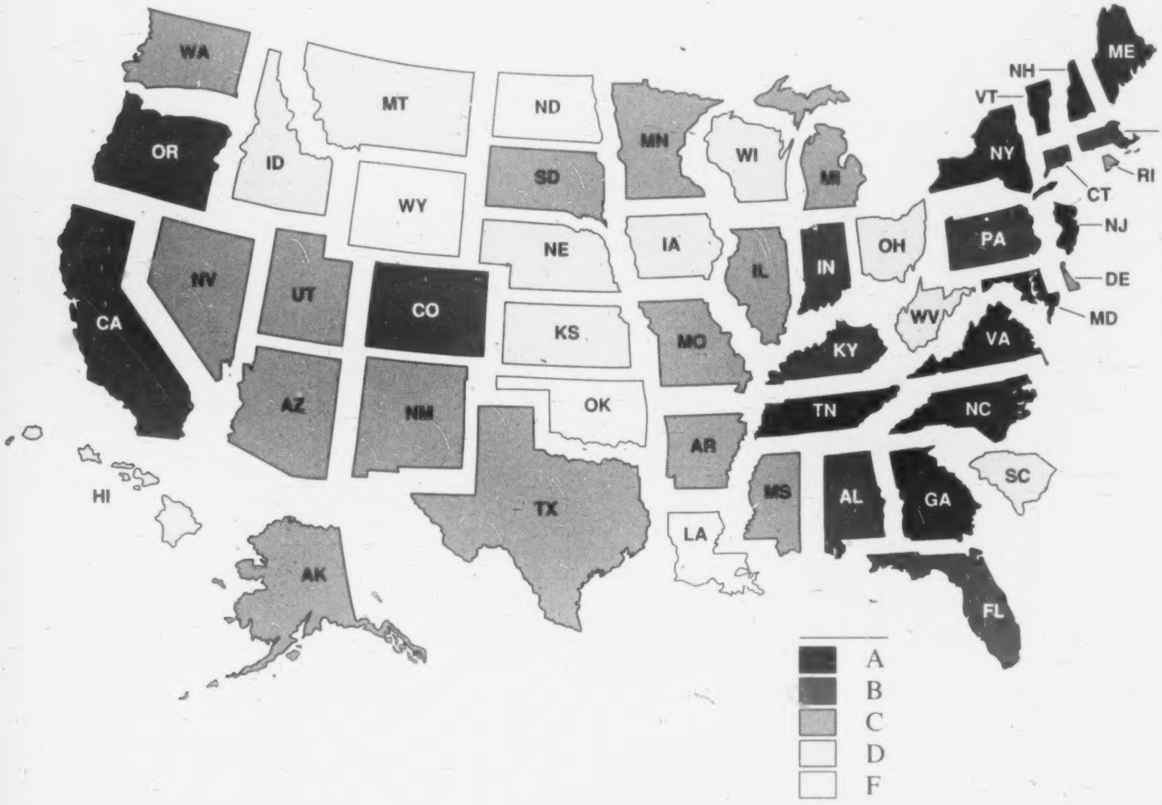
Environmental Quality

- **Air Quality**
  Degree to which state residents live in areas that exceeded national ambient air quality standards for ozone and/or carbon monoxide, 1986-87. Score.
  Source: Environmental Protection Agency, Office of Air Quality, Planning and Standards, news release, May 3, 1988. Calculations by CfED.
- **Superfund Dumpsites**
  Number of Superfund dumpsites per million population, 1986.
  Source: Environmental Protection Agency, "National Priorities List, Proposed Update #7," June 1988.
- **Hazardous Waste Generation**
  Metric tons of hazardous waste generated, per capita, 1986.
  Source: National Council on Public Works Improvement, "Hazardous Waste Management," prepared by Apogee Research, May, 1987.
- **Surface Water Discharge**
  Percent of major municipal and non-municipal dischargers in significant non-compliance with established water quality standards specified on permit, 1987.
  Source: Environmental Protection Agency, Office of Water Enforcement and Permits, unpublished tables, 1988.

Health and Safety

- **Infant Mortality**
  Infant deaths per 100,000 live births, 1987.
  Source: National Center for Health Statistics, *Monthly Vital Statistics Report*, September 1989.
- **Crime Rate**
  FBI index of serious crime rate per 100 residents, 1988.
  Source: Department of Justice, *Crime in the United States, 1988* (Washington, DC: Government Printing Office, 1989).

2 The Business Vitality Index


WA
OR
CA
ID
NV
MT
WY
UT
AZ
CO
NM
ND
SD
NE
KS
OK
TX
MN
IA
MO
AR
LA
WI
IL
MI
MS
IN
KY
TN
OH
WV
AL
GA
FL
SC
NC
VA
PA
NY
VT
NH
ME
MA
RI
CT
NJ
DE
MD
HI
AK
A
B
C
D
F

Business Vitality Report Card

	Business Competitiveness Subindex		Entrepreneurial Energy Subindex		Structural Diversity Subindex		FINAL GRADE	
	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade
Alabama	17	B	27	C	18	B	17	B
Alaska	13	B	23	C	45	D	30	C
Arizona	41	D	4	A	25	C	26	C
Arkansas	12	B	35	C	20	B	23	C
California	27	C	5	A	25	C	14	B
Colorado	40	D	14	B	2	A	12	B
Connecticut	1	A	34	C	20	B	11	B
Delaware	7	A	12	B	49	F	25	C
Florida	45	D	3	A	15	B	19	B
Georgia	19	B	7	A	15	B	3	A
Hawaii	36	D	13	B	44	D	38	D
Idaho	33	C	32	C	42	D	45	D
Illinois	11	B	50	F	13	B	27	C
Indiana	15	B	27	C	17	B	15	B
Iowa	28	C	41	D	37	D	44	D
Kansas	38	D	21	C	33	C	37	D
Kentucky	29	C	21	C	9	A	15	B
Louisiana	50	F	38	D	40	D	48	F
Maine	21	C	6	A	22	C	5	A
Maryland	34	C	7	A	11	B	9	A
Massachusetts	3	A	41	D	12	B	12	B
Michigan	10	A	40	D	41	D	35	C
Minnesota	5	A	31	C	29	C	21	C
Mississippi	26	C	35	C	6	A	23	C
Missouri	39	D	43	D	4	A	33	C
Montana	42	D	19	B	38	D	42	D
Nebraska	9	A	44	D	43	D	41	D
Nevada	15	B	10	A	50	F	29	C
New Hampshire	8	A	1	A	25	C	1	A
New Jersey	2	A	23	C	13	B	2	A
New Mexico	49	F	15	B	1	A	21	C
New York	4	A	47	F	3	A	10	A
North Carolina	6	A	25	C	18	B	5	A
North Dakota	48	F	39	D	48	F	49	F
Ohio	24	C	49	F	22	C	40	D
Oklahoma	43	D	37	D	38	D	47	F
Oregon	20	B	11	B	31	C	17	B
Pennsylvania	22	C	33	C	8	A	19	B
Rhode Island	14	B	45	D	24	C	31	C
South Carolina	32	C	26	C	35	C	38	D
South Dakota	31	C	30	C	30	C	35	C
Tennessee	25	C	15	B	9	A	5	A
Texas	45	D	17	B	28	C	34	C
Utah	47	F	20	B	7	A	27	C
Vermont	17	B	2	A	31	C	8	A
Virginia	36	D	7	A	5	A	4	A
Washington	34	C	17	B	34	C	32	C
West Virginia	29	C	27	C	45	D	43	D
Wisconsin	23	C	48	F	36	D	45	D
Wyoming	43	D	46	F	47	F	50	F

2

VITALITY

As part of any thorough check-up, immediately after taking your medical history and asking about your recent state of health, your doctor is likely to order some tests. Indeed, the process of obtaining basic data — the *Objective* part of the *S.O.A.P.* procedure — began when the nurse took your temperature, pulse and blood pressure while you waited for the doctor. These tests are designed to shed some light on why it is you feel the way you do, and to identify any other conditions for which symptoms may not yet have even emerged. After all, the better your vital signs, the healthier you are likely to be — now and in the future.

The Business Vitality Index does roughly the same thing for state economies. Since businesses, ultimately, are the lifeblood of any economy — the source of most jobs, income and growth — we want to get some basic data on how well they are functioning. To measure the vital signs of a state's business community, we probe eight indicators, gathered into three subindexes:

- *Competitiveness of Existing Businesses:* whether existing businesses, especially those in the "traded sector" are strong and growing or weak and failing;
- *Entrepreneurial Energy:* whether new businesses are being born and are growing and whether that growth is distributed widely across all segments of the population; and
- *Structural Diversity:* whether the businesses supporting the economy are broadly-based and, by extension, whether the state's economy is vulnerable to sudden change in the condition of any individual sector.

When people ask about a state's business climate, what they're really asking is: "Am I likely to succeed if I build a business here?" The simplest answer to this question is: "Look around." If business is booming — if existing businesses are growing and investing in themselves, if new businesses are being born and growing at a healthy rate, if this growth is occurring across a wide range of industrial sectors — it's a pretty safe bet that the state's economy is in good shape, that its business climate is good, and that your business will do well there.

There are limitations to this approach, of course. Just as your doctor cannot look at your vital signs and promise that you won't be run over by a truck tomorrow, the Business Vitality Index cannot predict business success or adequately characterize the condition of the entire state economy. That's why there are three other Indexes.

Business Vitality Index Findings

Since jobs and income are created, for the most part, by businesses, it follows that states doing well on the Economic Performance Index should do well on Business Vitality, and that states that do poorly in one should also do poorly in the other.

And indeed that is largely the case. Of the 20 states earning *A*'s and *B*'s in Economic Performance, 12 also receive *A*'s or *B*'s in Vitality. Similarly, but not quite as dramatically, of the 14 states earning *D*'s or *F*'s in Performance, 11 earn a *C* or lower in Vitality, with five receiving *D*'s or *F*'s.

Who are they? At the top of the Business Vitality list are two types of states — those, like Maine, Maryland, New Hampshire, New Jersey and Vermont, that lead in many *Report Card* categories, and those, like Florida, Georgia and North Carolina, whose booming metropolitan economies overshadow weaknesses in their rural areas.

Also with *A*'s and *B*'s are four states — Alabama, Colorado, Kentucky and Tennessee — whose economies generally perform poorly, but score high in the Entrepreneurial Energy and Diversity subindexes. That is, despite the average or below competitiveness of existing businesses — or *because* of it — these states had relatively high numbers of new businesses form last year.

The states at the bottom of this Index, with three exceptions, have economies that tend to be narrowly-based and concentrated in sectors that have struggled for much of the last decade — agriculture, energy and mining. The exceptions — Hawaii, Ohio and Wisconsin — score *A*'s and *B*'s on the Performance Index, but fare poorly here for different reasons. Wisconsin and Ohio rank 48th and 49th, respectively, in Entrepreneurial Energy — that is, while their existing businesses may be doing well, they lag other states in new business creation. Hawaii, on the other hand, scores well in Entrepreneurial Energy, but poorly in Diversity — reflecting the narrowness of its economic base.

In the middle, earning *C*'s, are a mix of states. Some, like Arizona and Nevada, have experienced such rapid population growth in the past decade — with corresponding new business growth — that they have countered weaknesses in other Vitality measures. Others, industrial states like Michigan, Minnesota and Rhode Island, have highly competitive businesses but, perhaps as a consequence, low new business formation rates. Their strength in the first category is offset by weakness in the second.

Competitiveness of Existing Businesses Subindex Findings

The connection between Economic Performance and Business Vitality is strongest in the Competitiveness subindex. With only minor exceptions, Americas's most advanced and most globally-oriented economies lead this subindex — including Connecticut, Massachusetts, Michigan, Minnesota, New York and New Jersey. Conversely, states that earn the lowest grades in Competitiveness are — again, with only minor exceptions — the states with the weakest, most insular economies, including Louisiana, New Mexico, North Dakota and several other mining and energy-dependent states.

The real wealth-generators in any economy, and often the sources of the best jobs, are in the "traded sector" — the businesses that export goods and services out of the state. Leaders in this measure are many of the nation's industrial leaders — Michigan, New Jersey and Ohio, among others. But since we need to know not just how much of the state's economy is in the traded sector, but also whether it is growing, this year we added a new indicator of *change* in traded sector income. The results are a bit more complex. Many overall economic leaders lead here too, as expected. But other states, with weaker traded sectors and overall performance also score well. This is encouraging; it suggests that even weak economies can improve competitiveness, creating progress which, while perhaps not earth-shattering, nevertheless has meaning — and promise — within the state's borders.

It's a commonly-held belief that states with "hot" economies will also experience high levels of business failures. Once again, this year's *Report Card* disproves this theory. Eight states with *A*'s on the Performance Index also had the lowest rates of business failure. States with the highest firm failure rates either scored low in Performance as well or have experienced a sharp decline in a sector upon which they depended disproportionately — like the impact of the oil slump on Alaska, Colorado and Louisiana.

Entrepreneurial Energy Subindex Findings

At its simplest, the results of this subindex simply confirm that fast-growing states have high levels of entrepreneurship. All 10 states leading this subindex experienced very high population growth in the last few years; some, like Arizona and Florida, have been growing rapidly throughout the decade.

A closer look at the individual measures in this important subindex, however, tells a more complex — and more revealing — story. For example, most states leading in the birth of new companies also rank high for the speed with which new companies (though not necessarily the same companies) are growing, a good sign of economic health. But in only one state in the second tier ranking for new firm births — Delaware — are businesses growing fast. In most others, especially Colorado, New Mexico and Texas, business growth is very slow. Since each of these states has suffered a significant economic slump recently, it is likely that we are seeing a kind of "entrepreneurship of necessity." That is, people are forming businesses that substitute for jobs they have lost, that will permit them to continue living where they are. But these figures do suggest that these businesses are running into real barriers to growth — whether it is lack of available financing or weak local markets to support their growth — which, in turn, limit their ability to improve state economic prospects.

These two measures also provide some insight into the emerging slowdown in New England. While Massachusetts ranks 5th in fast growing firms, the rate at which it is creating new firms has slipped to 44th.

Finally, the minority and women business ownership measure tells us something interesting about the culture and geographic distribution of enterprise earlier this decade. (New data are finally due out next year). The states ranking at the bottom of this measure — Illinois, Massachusetts, New York — all have large, very poor, urban black populations. "Urbanness" appears to be important; Mississippi, not highly urban, but with the highest percentage of blacks in its population, scores relatively well on this measure. Three things characterize the thinly-populated states doing very well on this measure — Idaho, Maine, Montana, New Hampshire, New Mexico, North and South Dakota and Vermont. First is a relative absence of minorities (Native Americans are not included in this calculation). The second, and more intriguing, is an absence of alternatives to starting your own business. White males compete heavily for the few jobs available in these states. Third, except for the Dakotas, these states enjoy relatively high levels of entrepreneurship in general.

Structural Diversity Subindex Findings

As our economy becomes more sensitive to the ups and downs of global forces, the degree of diversity within a state economy can help provide an indication of how resilient it might be in the face of rapid change. The Structural Diversity subindex is expanded this year to give a fuller sense of the state's economic variety. We continue to measure whether the economic downturns or "valleys" in one sector are offset by the economic upturns or "peaks" in another; we call this "dynamic diversity." But we also consider this year whether a state's economic base income is distributed across different industrial sectors — "sectoral diversity" — or concentrated in just a few. Given this fuller sense of diversity, we are now weighting this subindex equally with the Competitiveness and Entrepreneurial Energy subindexes.

The states that rank near the bottom of this subindex are ones we would expect to see there: energy industry dominated economies (Alaska, Louisiana, North Dakota, West Virginia, Wyoming and others), auto industry dominated Michigan, and the "leisure economies" of Hawaii and Nevada. And, for the most part, the states arrayed in the mid-range — earning *B*'s and *C*'s — also make sense. They are states with complex economies not disproportionately dependent upon any one sector.

States topping this list suggest that diversity by itself may not be enough to bolster a state's overall economy. Certainly states like Missouri, New York, Pennsylvania and Virginia have complex, highly diversified economies that serve to moderate any economic declines. Even Mississippi and Tennessee, though relatively weak, have diversified economic bases that seem to add to the state's economic growth. But Kentucky, New Mexico and, less so, Colorado have been heavily affected by the recent energy industries slump, no matter how diversified the overall structure of their economy as a whole.

Subindex One: Competitiveness of Existing Businesses

The economic climate of any state is determined, in part, by the competitiveness of the businesses that already exist in the state — that is, their ability, compared to their competitors, to marshal resources and develop new technologies to create and produce new goods and services for expanding world markets. To determine how businesses in each state are doing, we use three measures: traded sector strength, change in traded sector strength and business failure rate. We did not include manufacturing capital investment this year because the Census of Manufacturers for 1987 was not released in time for this study.

Traded Sector Strength

The engine of every state economy is its "traded sector" — the businesses that produce goods and services that are exported out of the state and, thus, bring income into the state. Traded sector businesses also strengthen state economies even when they sell within the state, if their products or services displace imports from other states or nations. The strength of the traded sector can be measured by the sum total of its "value-added" — that is, the difference between the cost of the materials that go into a product and what it can sell for. Value-added measures the inflow and retention of wealth in a state economy.

Getting a handle on value-added, and thus on the strength of the traded sector, is no mean feat. Here, we take the principal indicator of value-added in each state's traded sector — that is, *income* (wages, salaries, unincorporated profits, and so forth) — and divide it by the number of people employed statewide to adjust for differences in state size. (See *Appendix C* for a fuller explanation of this measure.)

Change in Traded Sector Strength

The strength of a state's traded sector does not suggest, however, whether the state's traded sector industries are faring better or worse than in recent years. This year we have added a new measure to get at the changing condition of a state's traded sector industries. We examine the change in traded sector income per worker from 1984 to 1988. This measure combines two effects: first, the mix of industries in a state and whether they are fast- or slow-growing and second, the performance of a state's traded sector industries compared to those industries nationally. So, for example, a state that ranks about average may have high-growth industries that are not faring well, or may have slow-growth industries that are performing better than the rest of the nation, or may have moderately-growing industries that are performing at the national average. Understanding the reasons behind this measure requires detailed analysis.

Business Failure

Perhaps the most basic indicator of the competitiveness of the businesses in a state is simply whether they survive. At least theoretically, one might expect more business failures in states with high degrees of entrepreneurship, but we find that this often is not the case. States with a high degree of entrepreneurial energy often have relatively low business failure rates. This suggests that high failure rates may indicate an economy in trouble. This measure does not include *all* business failures, just those that went into bankruptcy or receivership, or those otherwise involved in voluntary actions that resulted in actual losses to creditors.

Subindex Two: Entrepreneurial Energy

The rapid generation of new jobs (and the disappearance of old ones) is a central characteristic of the American economy. In fact, more than half the new jobs in any state in the next five years will be created by businesses that do not even exist today — businesses that often will be started by people who are not now in business and who already live in the state.[1] In addition, new firms perform a vital function in changing state economies: they replenish the jobs lost when larger companies pare their workforces to become more competitive, or when companies that fail to take such action close altogether. Finally, in state after state, it has become clear that some new businesses can spawn entire industries — and such industries tend to grow in close proximity to the "parent" firm.[2]

Most indigenous firms are small, and small firms are key to economic competitiveness. While innovation can occur in larger firms, smaller firms are generally more efficient at product and process innovations, less footloose, and able to react more quickly to changing economic circumstances.

New and small businesses are not without their own shortcomings, however. They are more likely to fail than established firms, tend to pay lower wages initially, and offer fewer benefits. On the other hand, they often provide entry opportunities for workers with no previous experience and limited skills, invest in training these workers and, thus, increase their future employability and mobility. And while these firms fail more frequently, the failure rate appears to be much lower than previously thought.[3] During the last recession, for example, you were more likely to lose your job through contraction or failure if you were employed in a firm with more than 100 employees, than in one with fewer than 100.[4].

To capture the entrepreneurial energy in a state, we look at three things: the birth rates of new businesses, the growth rates of new businesses, and the level of entrepreneurship among minorities and women. This year, we do not have up-to-date information on new enterprise growth rates in both metropolitan and non-metropolitan areas, and so excluded those measures.

New Companies

Our measure for identifying new companies in this subindex is business formations per 10,000 workers in the state. Specifically, we measure the number of companies created after 1985 that were employing at least 10 people by January 1989. We are interested here in whether new firms reach a significant size, not simply in how many of them exist at any one time in a state.

We note that a weakness of any business formation rate is that it includes existing firms that have simply changed owners. Also, we continue to have to rely on modified Dun and Bradstreet data, because comparable sets of Unemployment Insurance file data on firm dynamics are unavailable. However, this problem is common to all states and introduces no bias that we can identify for or against any state.

Fast Growing Companies

We can get a pretty good picture of the level of vitality in a state by looking at the companies that are both young and rapidly-growing. The growth patterns of these young "high fliers" tells us something about their ability to meet emerging market needs and to initiate, adapt to and take advantage of change. In this measure, "fast growing" refers both to the number of jobs created *and* to the percentage of that growth. Thus we do not include large companies that may have added what appear to be a lot of jobs but which have had, in fact, only a slight overall percentage growth. By the same token, we do not include very small firms with a very high percentage growth that represents only a few jobs.

Minority and Women Business Ownership

Economies in which entrepreneurship is not widely distributed among all segments of the population — to include non-traditional entrepreneurs such as women and minorities — are missing out on sources of new economic growth. Equity in state economic performance can never be fully achieved unless all segments of the population have the opportunity to enter the "pool of entrepreneurs." Moreover, by encouraging minority and women entrepreneurs, states reap other important benefits: such businesses are more likely to put down roots in distressed communities, more likely to hire minority and women employees, and more likely to provide role models for future entrepreneurs in their communities, than are other firms.[5]

As with new companies, we have taken care in this measure to distinguish between entrepreneurial energy and entrepreneurial necessity. Business ownership among both women and minorities has risen sharply in recent years, but many of these firms have been created by individuals who, because of barriers to their participation in the mainstream economy or simply insufficient resources, are self-employed as domestics, handymen, baby-sitters and the like. Even so, nationwide, minorities are less likely than non-minorities to own a business — 1.8 percent of the minority population owned businesses in 1982 compared to 6.4 percent in the population as a whole.[6]

In this measure we focus only on women and minority (black and Hispanic) -owned businesses (sole proprietorships, partnerships and Subchapter S corporations) with paid employees. In addition, we measure these firms in relation to population. Again we must emphasize that high self-employment rates — whatever the cause — are resources to be developed.[7]

Subindex Three: Structural Diversity

Diversity among traded-sector industries is essential to long-term business vitality, because it decreases vulnerability to sharp changes in the fortunes of any one industry. Recent studies of rural economies in the U.S., for instance, suggest that diversity is a key factor in the growth or decline of an area's economy.[8] We measure two features of diversity — how diverse an economy acts, so that when one industry is declining others are stable or growing, and how diverse an economy looks, with employment distributed across many industries.[9] (Please see *Appendix C* for a fuller explanation of these two Structural Diversity measures.)

Sectoral Diversity

One indication of the diversity in a state's traded sector is the degree to which its traded sector is spread across a range of industries rather than concentrated in just a few major industries. To measure the degree of concentration in a state's traded sector, we make use of a measure known as the Herfindahl Index, which places states on a scale of 0 to 1, with states closer to 0 being more diverse and states closer to 1 being less diverse.

Dynamic Diversity

This measure examines the extent to which changes in employment in one traded industry parallel — or do not parallel — changes in other industries for each year between 1984 and 1988. However, the concept of dynamic diversity is easier to describe than it is to measure precisely. For example, a booming economy — one in which all sectors are growing simultaneously — will appear to be poorly diversified, even if it is not, because all sectors are moving in the same direction at once. In addition, occasionally an economy will turn out, upon closer inspection, to be less diversified than the measure suggests, because while it has industry sectors that move in opposite directions, it has only a few of them.

This year we have not penalized states in which the overwhelming majority of traded sector industries are growing if their major industries are not found in the same general sector — like tourism and entertainment. The growing states whose scores were adjusted — California, Florida, Georgia, Oregon, Vermont and Washington — all score a "0," indicating that we cannot determine the ability of their traded sector industries to respond to different external factors.

Endnotes

1. See, for instance, U.S. Small Business Administration, *The State of Small Business* (Washington, DC: Government Printing Office, 1988); and David Birch, "The Job Generation Process," MIT Program on Neighborhood and Regional Change, 1979.

2. See, for a discussion of the "agglomeration" of businesses, Jane Jacobs, *Cities and the Wealth of Nations* (New York: Random House, 1984); Harry Richardson, *Regional Economies: Location Theory, Urban Structure and Regional Change* (New York: Praeger, 1969); and D.E. Keeble, "Models of Economic Development," in R.J. Chorley and P. Haggett, *Models in Geography* (London: Methuen, 1967).

3. Bruce D. Phillips and Bruce A. Kirchhoff, "Formation, Growth and Survival: Small Firm Dynamics in the U.S. Economy," paper presented at the Babson Entrepreneurship Research Conference, May 1988.

4. Candee S. Harris, "The Magnitude of the Job Loss from Plant Closings and the Generation of Replacement Jobs: Some Recent Evidence," *The Annals of American Academy of Political and Social Science*, September 1984. See also Robert Meyer, "Structural Change and Job Dislocation," unpublished paper, The Brookings Institution, April 1984. While younger and smaller businesses are more likely to fail and close than older, larger firms, these loss rates are often overstated and are, in any case, overshadowed by firm birth and expansion rates. Less than one percent of all businesses fail each year with a loss to creditors. Of these, 80 percent have survived their first two years, with the big failure rates occurring in years three, four and five — by the end of which period 61 percent of the failures will have occurred. A larger percentage of businesses — eight to nine percent — close each year for a variety of other reasons, many having little to do with the intrinsic value of the business, and these too tend to be younger and smaller, though not exclusively so. Kibre Dawit and Robert Friedman, "Myths of Small Business Failure," *The Entrepreneurial Economy*, July 1982.

5. See, for example, Eugene P. Foley, "The Negro Businesswoman: In Search of a Tradition," *Daedalus*, Winter 1966; Federico V. Magdalena, "The Filipino Entrepreneurs of Hawaii: An Inquiry into their Roots and Success," unpublished doctoral dissertation, University of Hawaii, 1977; Bernard Saracheck, "Jewish American Entrepreneurs," *Journal of Economic History*, June 1980; David Caplovitz, *The Merchants of Harlem* (Beverly Hills, CA: Sage Publications, 1973); and Janice K. Demarest, "Women Minding Their Own Business: A Pilot Study of Independent Business and Professional Women and Their Enterprises," unpublished doctoral dissertation, University of Colorado, 1977. A survey of inner city businesses in Buffalo revealed that nearly 100 percent of full-time employees in black-owned firms were blacks, while only 21.5 percent of the employees of white-owned businesses were black. For a review of minorities and enterprise development, see The Corporation for Enterprise Development's *The Entrepreneurial Economy*, April 1984.

6. U.S. Small Business Administration, *The State of Small Business 1987* (Washington, DC: Government Printing Office, 1987).

7. For each of the three groups of non-traditional entrepreneurs — women, blacks and Hispanics — we calculate the percentage of each group that operates businesses with paid employees. We then construct a single index of non-traditional entrepreneurship by combining the percentages for the three groups, with women accorded half the weight and blacks and Hispanics receiving one quarter each. We chose this weighting scheme to roughly take into account differences in the size of the population groups.

8. Ken Deavers, "The Reversal of the Rural Renaissance: A Recent Historical Perspective," *The Entrepreneurial Economy Review*, September/October 1989.

9. H.L. Brewer, "Regional Economic Stabilization: An Efficient Diversification Approach," *Review of Regional Studies*, 1987.

Business Vitality Data

	COMPETITIVENESS OF EXISTING BUSINESSES							
	Traded Strength per worker		Change in Traded Sector Strength		Business Failures per 10,000 cos.		New Companies per 10,000 wkrs.	
	$	Rank	$	Rank	#	Rank	#	Rank
Alabama	7,882	22	947	18	82	24	10.4	20
Alaska	9,293	10	1,959	1	200	48	10.1	24
Arizona	6,224	44	952	17	207	49	17.0	2
Arkansas	7,608	26	994	12	65	17	8.6	34
California	8,626	13	869	25	138	43	12.0	10
Colorado	7,168	37	887	21	248	50	11.2	12
Connecticut	12,154	1	1,729	3	17	1	7.9	41
Delaware	10,590	4	866	26	42	7	10.4	20
Florida	5,015	48	431	40	103	34	17.1	1
Georgia	8,065	19	992	13	100	33	13.1	7
Hawaii	5,790	46	879	23	79	22	12.9	8
Idaho	7,198	35	1,027	11	133	42	9.1	31
Illinois	9,479	6	1,107	8	126	39	7.4	47
Indiana	9,587	5	495	38	77	20	8.4	36
Iowa	7,503	27	635	33	81	23	7.0	49
Kansas	7,807	23	612	34	111	37	10.3	22
Kentucky	7,761	24	684	31	87	29	11.0	16
Louisiana	6,869	39	213	45	156	45	9.1	31
Maine	6,893	38	861	27	30	3	9.6	29
Maryland	6,375	43	430	41	41	6	14.0	4
Massachusetts	9,362	8	1,461	4	39	5	7.8	44
Michigan	10,885	3	923	19	86	27	7.9	41
Minnesota	8,542	14	1,235	6	48	9	8.7	33
Mississippi	7,313	30	980	14	95	31	10.0	25
Missouri	7,435	29	560	35	108	36	8.2	38
Montana	4,573	50	529	36	83	26	10.2	23
Nebraska	7,628	25	1,103	9	59	13	6.7	50
Nevada	8,278	17	1,271	5	132	41	14.3	3
New Hampshire	8,948	11	910	20	62	15	13.7	5
New Jersey	11,397	2	1,903	2	43	8	10.0	25
New Mexico	5,198	47	204	46	107	35	11.1	15
New York	9,392	7	1,173	7	52	12	8.3	37
North Carolina	8,285	16	1,039	10	50	10	9.9	27
North Dakota	4,787	49	-567	50	86	27	8.0	39
Ohio	9,307	9	450	39	82	24	7.6	46
Oklahoma	6,725	41	42	48	99	32	9.5	30
Oregon	7,236	33	966	16	67	18	11.2	12
Pennsylvania	8,364	15	350	43	51	11	8.0	39
Rhode Island	7,487	28	641	32	17	1	7.8	44
South Carolina	7,270	32	362	42	59	13	11.8	11
South Dakota	5,797	45	883	22	69	19	8.6	34
Tennessee	7,909	21	976	15	117	38	10.8	19
Texas	7,308	31	326	44	188	47	11.2	12
Utah	6,592	42	511	37	165	46	10.9	17
Vermont	7,196	36	873	24	32	4	12.2	9
Virginia	6,854	40	718	30	78	21	13.2	6
Washington	8,223	18	859	28	141	44	10.9	17
West Virginia	8,045	20	-201	49	62	15	9.8	28
Wisconsin	8,749	12	734	29	91	30	7.9	41
Wyoming	7,233	34	88	47	129	40	7.1	48

Please refer to *Business Vitality Data Sources* and *Business Vitality Index* text for further detail on individual measures.

ENTREPRENEURIAL ENERGY				STRUCTURAL DIVERSITY				
Fast Growing Companies		Min. & Women Bus. Ownership		Sectoral Diversity		Dynamic Diversity		
%	Rank	Score	Rank	Score	Rank	Score	Rank	
2.43	28	0.52	34	.04	1	0.66	35	Alabama
1.07	48	1.03	4	.12	43	2.36	43	Alaska
3.23	11	0.63	24	.06	16	0.00	24	Arizona
1.50	43	0.72	14	.07	26	-0.96	11	Arkansas
3.31	8	0.62	25	.06	16	0.00	24	California
1.92	38	0.77	12	.05	7	-3.10	2	Colorado
3.34	7	0.49	40	.08	33	-1.65	4	Connecticut
4.08	2	0.51	35	.22	49	2.02	41	Delaware
2.78	21	0.78	11	.05	7	0.00	24	Florida
3.23	11	0.56	31	.05	7	0.00	24	Georgia
2.84	17	0.51	35	.10	39	6.73	45	Hawaii
1.37	45	0.89	9	.12	43	1.27	38	Idaho
2.42	29	0.43	49	.05	7	-0.18	19	Illinois
2.64	23	0.64	23	.06	16	-0.53	16	Indiana
1.98	36	0.72	14	.09	37	0.52	34	Iowa
2.04	35	0.70	18	.07	26	0.37	33	Kansas
2.39	31	0.60	28	.05	7	-0.55	15	Kentucky
1.77	41	0.68	21	.07	26	10.99	48	Louisiana
3.24	10	1.02	5	.07	26	-0.92	12	Maine
3.75	3	0.48	42	.06	16	-1.45	7	Maryland
3.45	5	0.38	50	.06	16	-1.23	8	Massachusetts
2.84	17	0.49	40	.15	47	0.19	32	Michigan
2.48	25	0.61	26	.06	16	0.15	31	Minnesota
1.78	40	0.61	26	.05	7	-1.15	9	Mississippi
2.13	33	0.59	29	.04	1	-0.74	13	Missouri
1.15	47	1.66	1	.08	33	1.74	40	Montana
1.87	39	0.76	13	.13	46	0.88	36	Nebraska
3.07	15	0.54	32	.31	50	22.63	50	Nevada
4.53	1	0.88	10	.09	37	-1.68	3	New Hampshire
3.25	9	0.48	42	.06	16	-1.08	10	New Jersey
1.75	42	0.95	8	.05	7	-12.32	1	New Mexico
2.82	20	0.44	48	.05	7	-1.50	6	New York
3.38	6	0.46	46	.06	16	-0.17	20	North Carolina
1.03	49	0.96	7	.12	43	6.98	46	North Dakota
2.71	22	0.48	42	.06	16	-0.10	22	Ohio
1.43	44	0.70	18	.07	26	7.80	47	Oklahoma
2.45	26	0.72	14	.08	33	0.00	24	Oregon
3.13	13	0.51	35	.04	1	-0.32	18	Pennsylvania
2.84	17	0.48	42	.06	16	-0.04	23	Rhode Island
2.53	24	0.46	46	.07	26	1.57	39	South Carolina
1.27	46	1.08	3	.17	48	-1.62	5	South Dakota
3.09	14	0.54	32	.04	1	-0.14	21	Tennessee
2.06	34	0.68	21	.05	7	1.26	37	Texas
2.45	26	0.57	30	.04	1	-0.50	17	Utah
3.05	16	1.21	2	.08	33	0.00	24	Vermont
3.73	4	0.50	39	.04	1	-0.67	14	Virginia
2.38	32	0.70	18	.10	39	0.00	24	Washington
1.95	37	0.71	17	.11	42	5.88	44	West Virginia
2.40	30	0.51	35	.07	26	2.26	42	Wisconsin
0.89	50	1.01	6	.10	39	13.08	49	Wyoming

Business Vitality Data Sources

Subindex One: Competitiveness of Existing Businesses

Traded Sector Strength

Traded sector personal income per worker, 1988. Dollars.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *State Personal Income Summary Tables 1988*, August 1989; U.S. Department of Commerce, Bureau of Economic Analysis, *1985 OBERS BEA Regional Projections, Volume 1: State Projections to 2035*, 1985; U.S. Department of Commerce, Bureau of the Census, "Federal Expenditures by State for Fiscal Year 1988," March, 1989; U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Wages: Annual Averages, 1987*, Bulletin 2314, November 1988; Jack Faucett Associates, "Summary of State Commodity Consumption and Production — Final Balance," Jack Faucett Associates, Bethesda, MD, undated. Calculations by Mt. Auburn Associates.

Note: See *Appendix C: More on Traded Sector Strength and Structural Diversity* for more information on this measure.

Change in Traded Sector Strength

Change in traded sector strength per worker, 1984-88. Dollars.

Source: Same as Traded Sector Strength.

Business Failure

Business failures per 10,000 concerns, 1988. Number.

Source: Dun and Bradstreet, *Business Failure Record*, (New York: Dun and Bradstreet, 1989).

"Failures" are businesses involved in bankruptcy or receivership proceedings, or voluntary actions involving losses to creditors.

Subindex Two: Entrepreneurial Energy

New Companies

Companies founded in 1985 or later with at least ten employees by January 1989, per 10,000 (1984) workers. Number.

Source: "1989 Report on the States," *Inc.*, October 1989. Measure developed by Cognetics in Cambridge, Massachusetts, Number of workers from U.S. Small Business Administration, Small Business Database, 1988. Calculations by Mt. Auburn Associates.

Fast Growing Companies

Percent of companies in the state founded after 1981 with a growth index of 20 or more for the period January 1985 to January 1989.

Source: "1989 Report on the States," *Inc.*, October 1989. Measure developed by Cognetics in Cambridge, Massachusetts.

Note: The growth index is determined by multiplying the percent of job growth (in decimal terms) by the actual increase in the number of jobs. For example, a company which grew from 40 to 70 jobs would have an index of 22.5 — that is, (.75 x 30).

Minority and Women Business Ownership

Composite index of women-owned and minority-owned (black and Hispanic) businesses with paid employees, as a percent of all women and minorities in the labor force, 1982.

Source: U.S. Department of Commerce, Bureau of the Census, *1982 Economic Censuses: Women-Owned Businesses* and *1982 Survey of Minority-Owned Business Enterprises* (Washington, DC: Government Printing Office, 1986). Calculations by The Corporation for Enterprise Development.

Subindex Three: Structural Diversity

Sectoral Diversity

Herfindahl index, indicating the degree of industrial diversity with the state's traded sector, 1988. Score.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, *State Personal Income Summary Tables,* August 1989. Calculations by Mt. Auburn Associates.

NOTE: For each state, the Herfindahl score is determined by taking the sum of the squares of each traded industry's share of total traded sector income. As a simple example, a state with only two traded industries, one which produces 60% of traded sector income and the other 40%, would have a Herfindahl score of .52 — that is, (.6 x .6) + (.4 x .4). A "0" score indicates perfect diversification; "1" indicates that the state is dependent on only one traded industry.

See *Appendix C: More on Traded Sector Strength and Structural Diversity* for more information on this measure.

Dynamic Diversity

Index indicating the degree to which the employment levels in a state's individual traded industries moved in concert with one another, over the 1984-1988 period. Score.

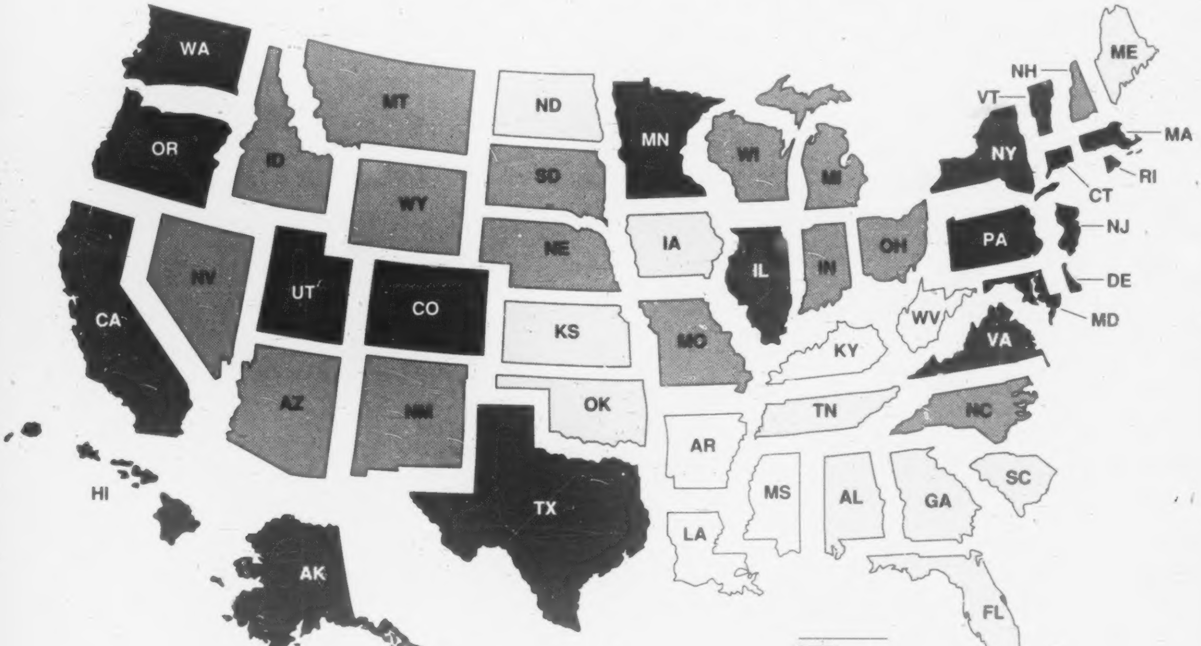
SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, *State Employment Summary Tables,* August 1989. Calculations by Mt. Auburn Associates.

NOTE: Each state's score is determined by calculating the sum of the covariances of annual employment change for the state's twelve largest traded sector industries over the 1984-88 period. The lower the score, the greater the degree of dynamic diversity.

See *Appendix C: More on Traded Sector Strength and Structural Diversity* for more information on this measure.

3

The Development Capacity Index


WA
OR
CA
ID
NV
MT
WY
UT
AZ
CO
NM
ND
SD
NE
KS
OK
TX
MN
IA
MO
AR
LA
WI
IL
MI
IN
KY
TN
MS
AL
OH
WV
GA
FL
SC
NC
VA
PA
NY
VT
NH
ME
MA
RI
CT
NJ
DE
MD
HI
AK
A
B
C
D
F

Development Capacity Report Card

	Human Resources Subindex		Technology Resources Subindex		Financial Resources Subindex		Infra./Amenity Resources Subindex		FINAL GRADE	
	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade
Alabama	43	D	35	C	37	D	42	D	45	D
Alaska	8	A	19	B	32	C	24	C	18	B
Arizona	25	C	26	C	21	C	17	B	21	C
Arkansas	44	D	50	F	48	F	45	D	48	F
California	23	C	3	A	10	A	22	C	12	B
Colorado	4	A	2	A	35	C	3	A	5	A
Connecticut	11	B	1	A	2	A	21	C	2	A
Delaware	28	C	10	A	11	B	2	A	7	A
Florida	39	D	43	D	36	D	26	C	41	D
Georgia	42	D	41	D	18	B	28	C	38	D
Hawaii	16	B	28	C	22	C	4	A	13	B
Idaho	22	C	29	C	30	C	41	D	33	C
Illinois	31	C	20	B	7	A	12	B	13	B
Indiana	29	C	31	C	33	C	29	C	33	C
Iowa	18	B	27	C	46	F	49	F	39	D
Kansas	6	A	39	D	39	D	40	D	36	D
Kentucky	48	F	47	F	29	C	43	D	47	F
Louisiana	47	F	44	D	27	C	46	F	46	F
Maine	26	C	39	D	26	C	34	C	37	D
Maryland	15	B	9	A	19	B	14	B	10	A
Massachusetts	14	B	7	A	1	A	15	B	3	A
Michigan	35	C	20	B	24	C	30	C	29	C
Minnesota	3	A	13	B	9	A	1	A	1	A
Mississippi	50	F	48	F	49	F	50	F	50	F
Missouri	34	C	23	C	33	C	32	C	33	C
Montana	5	A	42	D	41	D	25	C	31	C
Nebraska	12	B	37	D	45	D	9	A	27	C
Nevada	19	B	31	C	25	C	26	C	25	C
New Hampshire	9	A	22	C	16	B	43	D	22	C
New Jersey	23	C	11	B	6	A	7	A	6	A
New Mexico	33	C	4	A	42	D	31	C	30	C
New York	38	D	6	A	4	A	22	C	13	B
North Carolina	40	D	30	C	14	B	12	B	24	C
North Dakota	20	B	38	D	43	D	47	F	43	D
Ohio	36	D	15	B	20	B	20	B	23	C
Oklahoma	27	C	34	C	47	F	37	D	42	D
Oregon	13	B	25	C	12	B	5	A	9	A
Pennsylvania	32	C	14	B	5	A	6	A	10	A
Rhode Island	37	D	11	B	3	A	37	D	20	B
South Carolina	46	F	46	F	40	D	17	B	44	D
South Dakota	20	B	49	F	13	B	39	D	32	C
Tennessee	49	F	33	C	28	C	33	C	40	D
Texas	40	D	24	C	8	A	8	A	17	B
Utah	1	A	4	A	38	D	11	B	8	A
Vermont	7	A	16	B	14	B	35	C	16	B
Virginia	30	C	17	B	17	B	19	B	18	B
Washington	2	A	8	A	22	C	10	A	4	A
West Virginia	45	D	45	D	50	F	48	F	49	F
Wisconsin	17	B	18	B	31	C	35	C	25	C
Wyoming	10	A	36	D	44	D	16	B	28	C

3

CAPACITY

When your doctor has completed the subjective examination that began your check-up and has had an opportunity to run some basic tests to pinpoint the objective sources of your complaints, he or she will develop an analysis or assessment of the root causes of your current condition. Your doctor will find these causes among the basic systems of which your body is composed — skeletal, cardio-vascular, pulmonary, neurological, and so forth.

The *Development Capacity* Index does essentially the same thing for state economies. It is an assessment of the condition of the systems — the basic building blocks — of which state economies are composed, and upon which businesses depend. These building blocks include:

- *Human Resources:* the education and skill levels of the workforce;
- *Technology Resources:* the extent to which new technologies and technically-oriented individuals and institutions are available;
- *Financial Resources:* the availability and use of capital to meet the full range of business finance needs; and
- *Infrastructure and Amenity Resources:* roads, sewers, electrical power and other basic requirements.

In the last ten years, states have learned, sometimes the hard way, that these are the prerequisites of good economic health. Prior to the 1980s, it was argued that economic health could be attained by reducing the costs of doing business in a state — cutting taxes, resisting higher wages, weakening or limiting regulation, and subsidizing land costs, among other measures. This was the economic equivalent of the eighteenth century medical practice of "bleeding" — and the results were roughly the same: economies that existed in a constant state of weakness and vulnerability.

Over the last decade, however, state development officials and researchers began to question this accepted wisdom. Careful research revealed that cost factors had only a modest effect on differences in economic activity among states and did not explain variations in employment and growth.[1] Instead, less visible but more fundamental factors appeared to be the determinants of economic health: workforce skill, research and development investments, capital investment rates, industrial flexibility and specialization, and the quality of public infrastructure, among others.

These results have the clear ring of basic common sense. People can hardly be expected to thrive if they are deprived of nourishment and kept on the edge of impoverishment. Businesses cannot grow if they fail to invest in capital equipment, product research, market development, and in the skills of their workers. And economies cannot grow without significant and sustained investment in development capacity.

But the nation's governors soon discovered that acknowledging the importance of these investments and actually making the investments were two very different issues. Two colliding trends — years of inadequate investment, and the dramatic increase in investment needs brought on by a suddenly cutthroat global economy — meant the sheer scale of the need was beyond the reach of state government resources. Even more important, some of what needed doing was the responsibility of the private sector. It became clear that organizing to win in the new economy would require not just the resources, but the ingenuity and participation, of a wide array of public and private sector players.

And as we look at the Development Capacity Index results for 1990, it is clear that it will also require patience. The states that already have strong Development Capacity resources are, not surprisingly, often the leaders on the Economic Performance Index. States that have been working diligently to build or rebuild their capacity — like Pennsylvania, Ohio and Michigan — are steadily rising in Performance. And states that have just begun the task of rebuilding — like Arkansas and Mississippi — will have to wait a few more years before they see the fruits of their labors reflected in stronger performance.

Development Capacity Index Findings

With only a few exceptions, the states earning *A*'s and *B*'s on the overall Development Capacity Index are a kind of "Who's Who" of America's most advanced industrial states. They include states that have always had strong development capacity, such as New Jersey and New York; states that have been rebuilding capacity throughout the last decade, such as Massachusetts and Pennsylvania; and all of the states in what might best be termed the "Developed West," including California, Colorado, Hawaii, Oregon, Utah and Washington.

With strong showings in all four subindexes — Human, Technology, Financial, and Infrastructure and Amenity Resources — these are among America's most competitive states. Five of the 10 states earning an *A* in this Index — Connecticut, Delaware, Maryland, Massachusetts and New Jersey — also earn *A*'s in Economic Performance, and Minnesota just misses.

Two groups of states occupy the middle range of the Capacity Index, the low *B*'s and *C*'s: the mature midwestern industrial states (Illinois, Indiana, Michigan, Ohio and Wisconsin) and the "Underdeveloped West" (Alaska, Arizona, Idaho, Montana, New Mexico, Nevada and Wyoming). The generally high grades earned by the industrial states for Financial and Infrastructure resources are offset by weaker grades in Human and Technology resources, underscoring the limitations imposed on economies by a poorly-educated workforce. The "Underdeveloped West" is strong, in a number of cases, in Technology resources because of the presence of defense-related and other federal research facilities, but only fair in most other Capacity measures. But there is a key difference between the two groups: the Policy Index makes it clear that the industrial states are working hard to upgrade their weak capacity resources; the "Underdeveloped West," for the most part, is not.

Finally, the bottom of the Development Capacity Index is dominated by two familiar groups, the Deep South/Appalachia and the Plains states. The five states earning an *F* this year (Arkansas, Kentucky, Louisiana, Mississippi and West Virginia) are unchanged from last year. In addition, all but three of the states earning a *D* are the same.

Here, as with the middle group, there are two hidden stories. In the South and Appalachia, state and local officials are struggling to overcome decades, even centuries, of underinvestment and neglect, with initiatives that appear in the Policy Index but have yet to be felt as Capacity improvements. In the Plains states, however, there is less evidence of this effort. Long dependent on agriculture, oil, gas and mining, these states had nothing to fall back on when the bottom dropped out in the early 1980s. For the most part, they still don't. In the meantime, many of these states are losing their best and brightest children to other states and doing little to change their own economic fundamentals.

Human Resources Subindex Findings

This subindex provides an illuminating look at how educational attainment varies geographically in America. And, because a skilled workforce is a central requirement of economic growth in today's economy, it also tells us something about regional disparities in competitiveness.

Nearly three-quarters of the states earning *A*'s or *B*'s on this subindex are relatively thinly-populated, though some have a major metropolitan center. These states historically have placed a high value on education, especially high school completion. As a consequence, they tend to have exceptional high school graduation rates. Many of these same states, however — including Iowa and Nebraska, North and South Dakota, among others — have much lower high school and college attainment levels among their general population. That is, however many young people graduate from high school, relatively few stay in the state to live or go on to college in the state. Instead, in a pattern that is nothing new to rural areas, they head for the bright lights of the big city, where they show up in high college attainment levels in states like California, Colorado, Massachusetts, Maryland, New York and Virginia (which have only average or lower high school graduation rates themselves).

This pattern weakens the attractiveness of these states to businesses needing very highly skilled workers, but makes them highly attractive to companies that are looking for literate, work-ready, and traditionally highly-motivated workers. These rural states, in short, are good places for starting or growing most businesses.

Ironically, many of the states with the highest college attainment levels cannot make the same claim. Though enriched by well-educated in-migrants, their own citizens often have below-average literacy and high school graduation rates. The result is a potentially significant shortage of trainable workers to staff the new, fast-growing businesses that entrepreneurs in these states — including California, Connecticut, Maryland, Massachusetts and New York, among others — create at relatively high rates.

Finally, at the bottom of this subindex are those states that score uniformly poorly on all four measures of Human Resource capacity. Most are southern or Appalachian states still struggling with a legacy of illiteracy. To their credit, many of these states are working hard on major education reform programs, and some — like Mississippi — have become national leaders. Just above them in this subindex are states with severe urban underclass problems — high dropout rates, drug-related crime among young people, and teen pregnancy problems — and, in many cases, large immigrant populations not well integrated into either the school system or society. States in this category include Florida, New York and Texas and, to a slightly lesser extent, Michigan and Ohio, among others.

Technology Resources Subindex Findings

As it did last year, the Technology Resources subindex illustrates the close relationship between how well developed a state's technology resources are and how well it will perform. All the states that receive *A*'s on this subindex, and many that receive *B*'s, have either world-class research universities, technology-producing corporations or major national labs — or all three. In addition, nearly three-quarters of the states receiving *A*'s and *B*'s on this subindex received similar grades on the Performance Index. The reason is simple: the competitiveness of their economies is driven, to a significant extent, by their ability to convert high numbers of technology specialists and levels of research dollars into businesses and jobs, and they do it well.

There are exceptions, however, to this rule. New Mexico, with an *A* in this subindex and an *F* in Performance, illustrates that not all technology resources can be easily translated into jobs. New Mexico's technology resources are concentrated in top secret, defense-related research which is hard to commercialize and spin off into new enterprises. Moreover, because so much of its economy is concentrated in this area, the state is highly vulnerable to changes in federal funding priorities for defense, energy and space-related research. Its assets, ironically, are also its weakness.

Michigan and Illinois are two other exceptions. Both states have been leaders in helping their industries become more competitive through the development and adoption of new technologies. And in Michigan's case, these investments appear to be paying off; it has scored high for industrial competitiveness in the last two years. Still, it takes time for the changes to materialize into better job figures in the Performance Index.

At the other end of the spectrum are what might best be described as the "low-tech states," and they have changed very little since last year. These states have few scientists and engineers in their population, are producing relatively few new ones in their universities, and have limited federal and university R&D funding. They specialize in raw materials and commodity production and tend to be southern, rural, or both.

Finally, two states suggest that technology resources — especially research dollars and highly trained specialists — are fairly mobile. Both Arizona and Texas struggled with economic slowdowns in their most technology-intensive sectors in the late 1980s and, as a result, their standings in this subindex slumped sharply as well.

Financial Resources Subindex Findings

Financial capital is the lifeblood of economic development and, in theory at least, flows to where it is needed most. The Financial Resources subindex illustrates clearly that, for once, theory and reality largely coincide. The states that have the strongest financial capacity tend to be either traditional national and international banking and insurance centers (such as Massachusetts, Connecticut, New York, Pennsylvania and Illinois) and states with hot economies (such as California, Minnesota and Rhode Island).

Among the *B* and *C* scores in this subindex are two other categories of states. The first includes states whose economies would be weak were it not for a strong metropolitan economy that is also a regional banking and investment center, such as North Carolina (Raleigh/Durham), Georgia (Atlanta), and Arizona (Phoenix). (Minnesota, already a strong capital resource center benefits by being the banking center for the northern Great Plains as well.) The second includes states that catch the spillover effect of a particularly vibrant nearby economy, such as Vermont, New Hampshire and Rhode Island (Boston), and Virginia and Maryland (Washington D.C.) — proof once again that capital does flow to where it is needed. South Dakota, a state with limited capital resources of its own, appears with the *B* states in this subindex, most probably because Citibank operates its enormous MasterCard/Visa operation in the state.

At the bottom of this subindex are a number of states in the South, the Plains and the Mountain West — predominantly rural states chronically short on capital. The commercial bank deposits measure proves there is wealth in some of these states — particularly farm states like Iowa, Kansas and Nebraska — but other measures indicate little financial activity.

Infrastructure and Amenity Resources Subindex Findings

Perhaps the most basic determinant of any economy's ability to grow over time is the condition of its basic infrastructure — roads, bridges, sewer systems and the like. Despite this, getting a handle on infrastructure capacity is difficult at best. It is, by definition, a composite, and good nationwide data is limited. Nevertheless, updates in many of the Infrastructure and Amenity Resource subindex measures this year provide a clearer picture of the capacity of these vital inputs to growth than do earlier *Report Cards*.

The leaders in this subindex tend to be developed western and "Sunbelt" states — that is, states whose economic "wiring and plumbing" is relatively new, including Florida, Hawaii, Oregon, Texas and Washington, among others. Many older industrial states, including Connecticut, Illinois, Massachusetts and Pennsylvania also do well, earning low *A*'s to *C*'s. These states are distinguished by well-developed, if overtaxed, basic infrastructure; their systems are artifacts — to use both meanings of that term — of their long industrial history. But they have been keenly aware of the limits these systems place on future growth and have been improving them — as well as their standing in this subindex — for some years now.

Perhaps not surprisingly, with relatively few exceptions the states earning *A*'s and *B*'s in this subindex earn similar grades in the overall Economic Performance Index as well. States that score well in Performance, but poorly in this subindex, such as Rhode Island and New Hampshire, are beneficiaries of "spillover" development (in this case from Boston) and may have difficulty sustaining current growth levels on their own in the future.

With few exceptions, the states earning *D*'s and *F*'s on this subindex are thinly-populated, predominantly rural states. They receive low grades for their infrastructure for the simple reason that they have relatively little to grade. With smaller populations to serve and economies based principally on primary industries, they haven't needed much.

Within the individual measures comprising this subindex are several revealing stories. The doctor availability measure underscores what many residents of rural states already know: there is a clear shortage of doctors in our most thinly populated states. The leaders for this measure are principally states that host several large research hospitals and medical institutions.

For the sewage treatment needs measure, the states at or near the bottom of the list tend to be older industrial economies whose treatment capacity simply has not kept pace with demand. At the other extreme are states that either have excess capacity, or economies that make relatively small demands on treatment capacity.

Finally, as last year, the energy cost measure appears, more than anything else, to be a portrait of generation technologies: the states with the lowest energy costs tend to obtain their electrical energy from hydroelectric plants, many created with heavy federal subsidies. At the other extreme are states that depend on expensive, and in many cases troubled, nuclear generating plants.

Subindex One: Human Resources

Economic development is a profoundly human process. While each of the subindexes in this Index is important to state economies, what it takes is people — skilled, educated, adaptable, innovative people — to use these building blocks and create the structure of an economy. The more skilled the people, the stronger and more lasting the structure of the economy they build.[2]

The skills of a state's workforce, and the extent to which those skills are adaptable to changing economic circumstances, are the most basic components of its human resource base. The demand for these skills is accelerating. A recent forecast commissioned by the Labor Department predicts that more than half the new jobs generated between now and the year 2000 will require some education beyond high school.[3] The more the workforce possesses these skills, and the more management makes use of them, the more competitive state economies will be.[4]

While we would like to be able to measure actual skill levels within and across industries in state economies, no such information exists. Instead, this subindex explores educational attainment measures, including high school graduation rates, adult illiteracy rates, and high school and college educational attainment rates.

High School Graduation

In an economy in which the most basic qualification for most new jobs being created is high school completion, a state's economic competitiveness will be affected directly by its ability to produce new entrants to the workforce who meet this basic test of work-readiness. Despite differences from state to state in the level of competence associated with a high school education, not to mention the national controversy over the inadequate skills of those who do graduate, this measure is still the best baseline we have to gauge the skill level of tomorrow's workforce.

Adult Illiteracy

We also need to understand the skill level of a state's existing workforce if we are to assess the capacity of its economy to compete. Since nearly three-quarters of the year 2000's workforce is already out of school, competitiveness is directly related to the literacy levels of adults now in the workforce. Unfortunately, literacy requirements in today's workplace run well ahead of the measured data we have on adult literacy. Although we know a wide range of skills is needed to secure work in today's economy, the only comprehensive literacy data available for this measure is the U.S. Department of Education's "English Language Proficiency Survey." It assesses only reading ability and, at that, only whether adults read at the fourth grade level.

High School Education Attainment
College Education Attainment

In an economy in which knowledge is itself a traded commodity, the higher the educational attainment of the population, the greater the capacity of the state's economy to compete. These measures identify the percentage of household heads with at least a high school education or a college education as of the mid-1980s. These measures are based on merged Current Population Survey data for 1984 through 1986.

Subindex Two: Technology Resources

Technological innovation produces the seeds from which businesses and economies grow. This is true not just of "high tech" businesses but, increasingly, of *all* businesses — from steel to finance, auto parts to textiles. The rapid acceleration of technological innovation has had much to do with the widening recovery of the nation's industrial states. The computer industry rose from the ruins of Massachusetts' industrial past, for example, and robotics and machine vision technologies have played a key role in the renewed competitiveness of heavy manufacturing in the Industrial Midwest.[5]

Technological innovation transforms state economies in three ways: by creating entirely new industries when research spawns new products that meet or create new market demand, by improving existing products and rejuvenating existing markets, and by changing production processes in ways that lower costs, improve quality, or both. Often these are small advances, incremental increases in efficiency that provide a slight, often temporary, competitive edge. The more frequently these incremental advances occur, the stronger the state economy and the greater the growth in direct and indirect employment and income. Moreover, innovation begets innovation. That is, as the pool of innovators and the investments in research and development in a state increases, the number of businesses spawned or attracted by the innovation grows, reducing out-migration and increasing in-migration of workers and technicians and, in the process, generating new applications of the technologies being developed — and more new businesses.[6]

People — highly trained management and technical specialists — and money — expenditures for research and development — drive this process. Accordingly, this subindex examines the potential pool of innovators in a state, and the pool of dollars devoted to research.

Scientists and Engineers in the Workforce

The larger the potential pool of innovators in a state, the greater the likelihood that the capacity for innovation will become the reality of innovation. Not all innovators are scientists or engineers, and not all scientists and engineers are innovators. But there is a direct correlation between the technical capacity of the labor force and an economy's ability to generate new technology-based or -enhanced businesses, and that is what we seek to measure here.

Science and Engineering Doctoral Students

This measure indicates how extensive science training is in a state, though not the number of degree recipients who stay in the state. Nevertheless, the history of industrial innovation indicates that new businesses are spawned, more often than not, in the same place entrepreneurs received their degrees. Thus, as above, we can indirectly measure the capacity for innovative business development by assessing the technical strength of the workforce.

Patents Issued

This measure aims to capture the *rate* of innovation in a state. It is imperfect in that patents generally are issued at the location of the company headquarters, not necessarily the lab where the innovation is developed.

University Research and Development

The close correlation between world-class university research institutions and commercial spin-off businesses has been lost on no state. Interest in the research agendas of major educational institutions has risen sharply. Budget allotments to public universities have also increased. And new university-government-industry partnerships are being formed. This measure gives us a rough approximation of the scale of research and development spending at universities in each state and, indirectly, the capacity for associated business development.[7]

Federal Research and Development

There is a similar correlation between federal R&D spending and new business spin-offs. But the relationship varies significantly, depending upon what *kind* of research is underway. In states where much of the federal research is classified, the problem of getting the results "over the fence" and into the state economy can be quite considerable.

Subindex Three: Financial Resources

The relative availability of capital in a state sends a signal to would-be entrepreneurs that their ideas can become businesses in that state, at the same time that it provides the wherewithal for businesses already in the state to continue to grow. The more developed the network between financiers — bankers, venture capitalists and others — and businesspeople and state economic development officials, the greater the capacity for growth in the state.

The kind of capital a business requires depends on what stage of development it is in. In its infancy, as ideas are being developed and commercialized, a business needs small amounts of "patient" money — equity and long-term debt. As it matures and expands, it needs larger amounts of equity, working capital to finance its inventory, marketing and accounts receivable, and debt financing to acquire land, buildings and equipment. To stay competitive, it may also need long-term debt and equity to finance retooling and, in some cases, ownership changes. The lack of available capital at any of these stages can bring the entire enterprise to a halt.

State officials and business owners alike often express concern about "capital gaps" in their state — the perceived unavailability of money for expansion or start-ups, for example. Often the problem isn't that capital doesn't exist within the state, but that it's not accessible to the kinds of businesses that need it. Sometimes, the problem isn't even that capital is inaccessible, but instead that there is a shortage of credit-worthy business proposals.

But fundamentally, capital availability

depends upon both the underlying capital resources of the state's financial institutions *and* how aggressively those institutions invest those resources in local businesses. While capital markets are increasingly national, and even international, there are still wide variations in capital availability from state to state. Some states have more competitive commercial and investment banking than others. Not all bank services and products are available universally. Formal venture capital, while increasingly mobile, still tends to be invested near where the venture firm is based, so that it can be monitored easily. Thus, the extent of capital gaps and their effect on development can differ significantly across the nation.

The measures in this subindex cover a range of financing needs, from risk capital to fixed-asset financing and working capital available from commercial banks. Because of the limitations of published financial data, these measures cannot tell us what kinds of business are receiving financing (their size, sector, location or stage of development), the specific types of financial instruments provided, or how the financing is used.

Moreover, there are other players in the capital marketplace. They are not included here for several reasons. Thrift institutions, for example, are now able to provide business loans, but they have been slow to enter the market and are not, as yet, important sources of business capital. Commercial finance companies, while increasingly important sources of capital for small businesses, are not regulated, and little information is available about their impact on a state-by-state basis.[8] Insurance companies are another source of capital for corporations, but state-by-state data on their business-lending activities are not available.

Finally, state governments have become increasingly important actors in the capital marketplace, creating their own public or publicly-chartered venture capital and business lending programs, adjusting their own investment policies, and regulating private financial institutions more strategically to achieve public development objectives. This increasingly important source of financial capacity is discussed in the Policy Index.

While the subject is complex (and often contentious), this subindex provides a general picture of the financial capacity of states — focusing primarily on its commercial banks — using six measures: bank deposits, loan to equity ratios, loan to deposit ratios (a new measure added this year), commercial and industrial loans per 1,000 workers, commercial and industrial loans per total loans (a new measure added this year), and venture capital investments. We decided to no longer use dividends, interest and rent income as a proxy for the availability of private "seed" capital because of its high variability from year to year. The two new measures concerning commercial bank activity added this year — loan to deposit ratios and commercial and industrial loans to total loans — were added to supplement existing measures and to provide a more detailed portrait of a state's commercial bank activity.

Commercial Bank Deposits

Since deposits form the base from which banks invest, this measure provides a basic indicator of capital availability within a state. The higher the level of deposits, adjusted for population size, the more funds there are available for lending.

Loans to Equity

Equity is the original investment of the bank's founders plus any accumulated undivided earnings. The more aggressive the bank, the more this base is leveraged as loans to consumers and businesses. This measure is designed to begin to get at how aggressive commercial banks are at using their resources to further business investments and expansions in the state.

Loans to Deposits

Another indicator of how aggressive a bank is emerges by examining the ratio of a bank's loans to its deposits. Deposits represent the major resource base upon which banks are able to lend funds. The degree to which banks actually lend deposits versus invest them in other vehicles like bonds, is a key factor in evaluating their overall aggressiveness.

Commercial and Industrial Loans

To measure how well financial institutions are serving businesses, we first take the total of their commercial and industrial loans, and then adjust for differences in the size of their commercial and industrial sector by dividing by the number of non-agricultural employees in the state. This adjustment provides an indication of demand for business financing. One weakness with this measure is that a bank can make loans to businesses located outside that state — and such loans cannot be separated out of this measure.

Commercial and Industrial Loans to Total Loans

Another indication of how well commercial banks are serving businesses is to examine the extent to which their total loans go to commercial and industrial, versus housing and consumer, purposes.

Venture Capital Investments

Venture capital firms provide early-stage capital for firms with high growth potential and, as a consequence, can be instrumental in the formation and expansion of growth industries. Active venture capital participation in a state is an indicator of a rapidly developing economy and multiple investment opportunities. It is useful to note here that despite the fact that the venture capital industry has grown sharply in recent years, it is still quite small and focused in only a handful of states. Consequently, unless a state is among the top half dozen or so, venture capital rankings have little practical effect. This year we average two years of activity — 1986 and 1987 — to provide a more stable view of venture capital activity in the states.

Subindex Four: Infrastructure and Amenity Resources

Almost without exception, surveys of businesspeople and public officials concerned about economic development rate two issues at the top of any list of factors important to development: the condition of the basic infrastructure of the community or state, and the quality of the amenities in the area.[9]

Physical infrastructure and amenities — roads, bridges, water systems, sewage collection and treatment systems, housing stock, parks and recreation facilities, and cultural institutions — form the basic foundation upon which businesses build, and are crucial to attracting and keeping the employees businesses need to grow.

Broken water mains, over-taxed treatment plants, collapsed bridges and a pervasive failure of public agencies to invest in the maintenance of these facilities has led to widespread public concern about America's "infrastructure crisis,"[10] This concern has precipitated a number of studies, which have proven conclusively how such facilities contribute to state economies, and has led many states to rededicate themselves to improving these facilities as a central part of their economic development strategies.[11] In a similar vein, states and communities have begun to restore and enhance the amenities that define the quality of life in an area and have made substantial investments to turn amenity liabilities — such as polluted rivers and harbors and decaying waterfronts — into showcase amenity assets.

For two issues so important to the economic capacity of a state, the absence of clear, nationally consistent state-by-state indicators is especially frustrating. To begin to explore the Infrastructure and Amenity Resource capacity of states, we examine highway condition, bridge ratings, urban mass transit availability, energy cost, unmet sewage treatment plant needs, housing cost, the availability of doctors, distribution of foundation grant funds, and tourism spending. These measures are like pieces of a puzzle: individually they reveal only a little, but taken together they begin to illuminate the overall capacity of a state's infrastructure and amenities.

Highway Deficiency

In an economy in which most goods are transported by truck, highway conditions are not just a measure of state infrastructure capacity, they are a fundamental measure of competitiveness as well. This year we measure the percent of rural and urban interstate mileage with poor serviceability ratings.

Bridge Deficiency

For the same reasons, this year we also examine bridge ratings — specifically, the percent of deficient bridges which receive the federal aid, based upon a biannual report to Congress by the Secretary of Transportation.

Urban Mass Transit Availability

For [illegible] reasons — increasing the operating efficiency of metropolitan areas, and increasing the accessibility of the workforce to businesses — the availability of mass transit is an important capacity asset. We calculate availability by multiplying the total number of seats by the total mileage of service for all forms of public transportation for each metropolitan area, sum the products by state, and then divide by the total urban population for each state. The result is a measure of state effort — and capacity. This measure would appear to shortchange states with small urban populations and lots of wide open spaces, and, to an extent, it does. However, many such states fare quite well (Alaska, Arizona and Utah, for example) because, despite their thin population density, they serve the populations in their larger cities well.

Energy Cost

Electrical energy continues to increase in importance as economies become more technology-intensive. Moreover, energy costs vary substantially from state to state and affect both business costs and living costs. This measure calculates the average price per kilowatt hour of energy sold by electrical utilities to their commercial, industrial and residential customers, using data provided by the Edison Electric Institute.

Sewage Treatment Needs

Without adequate sewage treatment plant capacity, existing businesses are constrained and new businesses must seek other sites. Using EPA data, we measure the dollar amount of unmet sewage treatment plant needs on a per capita basis.

Urban Housing Cost

Many areas of the nation face shortages of available housing that threaten to constrain development prospects, particularly in urban areas. However, no adequate state-by-state assessment of housing capacity is available at present. We explore this issue instead by considering the cost of housing as a percent of personal income, based upon a weighted average of fair market rent schedules for a standard unit of housing in metropolitan areas, as calculated by the U.S. Department of Housing and Urban Development. We assume a direct relationship between availability and cost — that is, the scarcer the housing, the higher the cost of what is available.

Doctor Availability

The number of doctors available to a state's residents is a useful though incomplete measure of the ease with which people can obtain basic medical care and, by extension, an indirect measure of community well-being.

Foundation Grant Funds Distribution

Measuring the distribution of arts and cultural foundation grant funds provides us with an indirect way to capture charitable, volunteer and non-profit activities that create an environment of caring, enriching both states and the people who live in them — from the youngest to the oldest. This measure helps us understand a part of what people mean when they say: "This is a good place to live."

Tourism Spending

Another way to understand whether "this is a good place to live" is to observe people's behavior — specifically how much people pay to participate in recreation and tourism activities in a state. While this is an indirect measure of amenities, it has the advantage of being able to reveal how people *value* the amenities in a state — from amusement parks to campsites.

Endnotes

1. See Peter B. Doeringer, David G. Terkla, and Gregory C. Topakian, *Invisible Factors in Local Economic Development* (New York: Oxford University Press, 1987) for a review of this research and a detailed case study in Massachusetts.

2. See Edward Malecki, "Technology and Regional Development: A Survey," *International Regional Science Review 8* (1983); and Edward F. Denison, *Trends in American Economic Growth, 1929-1982* (Washington, DC: The Brookings Institution, 1985).

3. William Johnston, *Workforce 1000: Work and Workers for the 21st Century* (Indianapolis: Hudson Institute, June 1987).

4. U.S. Congress, Joint Economic Committee, *Location of High Tech Firms and Regional Economic Development* (Washington, DC: Government Printing Office, June 1982).

5. Edward Malecki, "Public and Private Sector Interrelationships, Technology Change, and Regional Development," Papers of the Regional Science Association, 47, 1981.

6. U.S. Congress, Office of Technology Assessment, *Technology Innovation and Regional Economic Development* (Washington, DC: Government Printing Office, July 1984); and U.S. Congress, Congressional Budget Office, "The Productivity Problem: Alternatives for Action," A CBO Study, January 1981.

7. Private research spending, though a critical measure, is often proprietary and, therefore, unavailable.

8. Mt. Auburn Associates, *The Design and Management of State and Local Revolving Loan Funds* (Somerville, MA: Mt. Auburn Associates, 1987).

9. See, for example, Roger W. Schmenner, *Making Business Location Decisions* (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1982); Michael Kieschnick, *Taxes and Growth: Business Incentives and Economic Development* (Washington, DC: Council of State Planning Agencies, 1981); Takeshi Nakabayashi, "A Survey on Location Decisions of Japanese Companies in the U.S.," unpublished paper for Mt. Auburn Associates and The Corporation for Enterprise Development, March 1987.

10. See Pat Choate and Susan Walter, *America in Ruins* (Washington, DC: Council of State Planning Agencies, 1981).

11. See Randall W. Eberts, "Estimating the Contribution of Urban Public Infrastructure to Regional Growth," Working Paper 8610, Federal Reserve Bank of Cleveland, December 1986.

Development Capacity Data

	HUMAN RESOURCES							
	High School Graduation		Adult Illiteracy		High School Attainment		College Attainment	
	%	Rank	%	Rank	%	Rank	%	Rank
Alabama	74.1	29	13	31	65	45	15	44
Alaska	69.8	37	7	2	86	3	24	9
Arizona	66.6	44	12	25	80	13	23	12
Arkansas	78.7	16	15	40	63	47	13	48
California	68.5	41	14	33	79	1	26	4
Colorado	76.5	24	8	4	85	20	27	3
Connecticut	82.2	9	12	25	77	5	26	4
Delaware	69.8	37	11	17	76	22	21	20
Florida	63.0	49	15	40	75	25	20	25
Georgia	63.4	48	14	33	69	40	20	25
Hawaii	81.7	10	15	40	81	9	23	12
Idaho	76.8	21	8	4	77	20	16	42
Illinois	76.8	21	14	33	74	31	21	20
Indiana	78.1	17	11	17	75	25	16	42
Iowa	86.9	3	10	14	76	22	17	39
Kansas	82.7	8	9	9	81	9	22	16
Kentucky	69.1	39	15	40	64	46	14	46
Louisiana	61.6	50	16	47	68	41	18	32
Maine	77.7	19	11	17	75	25	18	32
Maryland	76.1	26	12	25	78	17	29	1
Massachusetts	69.9	36	11	17	79	15	29	1
Michigan	72.9	33	11	17	74	31	18	32
Minnesota	89.5	1	9	9	80	13	23	12
Mississippi	67.5	43	16	47	62	48	13	48
Missouri	75.5	27	12	25	74	31	19	28
Montana	84.7	6	8	4	81	9	21	20
Nebraska	85.9	5	9	9	78	17	18	32
Nevada	73.0	32	9	9	82	8	18	32
New Hampshire	81.3	11	9	9	78	17	22	16
New Jersey	80.4	15	14	33	73	34	24	9
New Mexico	73.4	31	14	33	75	25	21	20
New York	66.3	45	16	47	72	37	24	9
North Carolina	68.0	42	14	33	68	41	19	28
North Dakota	88.3	2	12	25	75	25	18	32
Ohio	76.4	25	11	17	73	34	17	39
Oklahoma	74.0	30	11	17	76	22	20	25
Oregon	71.7	34	8	4	81	9	21	20
Pennsylvania	81.1	14	12	25	72	37	18	32
Rhode Island	70.5	35	15	40	67	43	22	16
South Carolina	65.2	46	15	40	67	6	17	39
South Dakota	86.7	4	11	17	77	43	15	44
Tennessee	68.6	40	15	40	60	49	14	46
Texas	64.9	47	16	47	73	34	22	16
Utah	81.3	11	6	1	87	2	23	12
Vermont	81.2	13	10	14	79	15	25	7
Virginia	74.6	28	13	31	71	39	26	4
Washington	78.0	18	8	4	86	3	25	7
West Virginia	76.8	21	14	33	60	49	11	50
Wisconsin	83.3	7	10	14	75	25	19	28
Wyoming	77.5	20	7	2	83	6	19	28

Please refer to *Development Capacity Data Sources* and *Development Capacity Index* for further detail on individual measures.

TECHNOLOGY RESOURCES

Sci.& Engin. per 1000 wkrs.		Sci./Eng. Stud. per 1000 pop.		Patents Issued per 100M		Univ. R&D per capita		Fed. R&D per capita		
#	Rank	#	Rank	#	Rank	$	Rank	$	Rank	
38.5	31	1.05	44	1.50	44	44.03	28	326.28	10	Alabama
47.7	15	1.84	19	0.98	47	73.79	5	94.82	25	Alaska
37.0	34	1.48	32	3.21	23	57.46	14	119.63	22	Arizona
32.7	39	0.82	50	0.88	48	15.67	48	21.61	48	Arkansas
56.2	6	2.04	15	5.57	12	61.04	11	485.33	4	California
64.8	2	2.75	6	3.86	18	62.70	10	460.88	5	Colorado
63.2	4	2.32	10	11.65	3	77.49	4	204.30	13	Connecticut
54.5	7	6.31	1	16.65	1	48.51	24	48.99	38	Delaware
29.1	48	0.86	49	2.08	30	22.06	44	185.65	14	Florida
31.8	43	1.13	43	1.41	45	55.39	17	55.02	35	Georgia
42.8	26	2.26	11	0.86	49	58.80	12	58.89	33	Hawaii
44.8	22	1.73	23	1.86	37	30.81	39	232.96	12	Idaho
42.0	28	1.62	27	7.73	5	47.32	25	71.64	28	Illinois
44.6	23	1.33	40	5.02	14	37.99	33	60.88	32	Indiana
40.0	29	1.44	34	3.41	20	63.52	9	57.21	34	Iowa
33.6	38	1.41	36	2.71	27	40.07	30	37.82	42	Kansas
30.8	44	1.01	45	2.07	31	24.71	42	16.71	50	Kentucky
37.8	32	1.25	41	1.96	35	37.47	34	24.37	47	Louisiana
39.2	30	1.45	33	1.53	43	14.37	49	148.11	18	Maine
58.5	5	3.84	2	4.82	15	16.87	46	869.01	2	Maryland
64.5	3	3.24	4	8.46	4	13.47	50	665.99	3	Massachusetts
52.5	10	1.43	35	7.15	6	47.12	26	49.83	36	Michigan
47.2	16	1.87	16	5.86	10	58.52	13	117.62	24	Minnesota
30.0	46	1.00	47	0.70	50	24.22	43	70.22	30	Mississippi
46.7	17	1.49	31	3.31	21	45.20	27	119.60	23	Missouri
29.3	47	1.76	22	1.60	41	39.88	31	37.41	43	Montana
37.8	32	1.64	24	1.95	36	52.06	22	30.56	46	Nebraska
52.5	10	0.94	48	1.81	39	30.81	39	435.86	6	Nevada
49.7	13	1.38	38	4.07	17	49.21	23	75.99	27	New Hampshire
53.3	9	2.36	8	12.02	2	31.58	38	144.40	19	New Jersey
50.0	12	3.79	3	1.97	34	82.70	2	1,323.16	1	New Mexico
45.8	21	2.34	9	6.59	9	69.56	6	164.35	16	New York
30.3	45	1.64	24	2.07	31	57.02	15	89.44	26	North Carolina
24.5	50	1.81	20	1.56	42	53.12	19	44.27	40	North Dakota
48.7	14	1.59	28	6.87	7	35.14	36	171.42	15	Ohio
46.1	20	1.37	39	5.61	11	34.91	37	31.19	45	Oklahoma
42.3	27	1.86	17	3.29	22	54.10	18	48.83	39	Oregon
46.7	17	1.79	21	6.77	8	56.13	16	139.85	20	Pennsylvania
36.2	36	2.25	12	4.57	16	77.93	3	367.23	9	Rhode Island
32.1	42	1.15	42	1.79	40	29.24	41	35.40	44	South Carolina
24.6	49	1.55	29	1.36	46	17.24	45	17.94	49	South Dakota
36.6	35	1.54	30	2.05	33	37.35	35	148.80	17	Tennessee
46.2	19	1.41	36	3.10	24	52.88	20	134.75	21	Texas
53.4	8	2.50	7	3.01	25	86.35	1	252.63	11	Utah
32.5	41	3.01	5	3.46	19	66.21	8	71.16	29	Vermont
43.8	24	2.14	13	2.66	28	39.17	32	382.38	8	Virginia
71.6	1	2.08	14	2.89	26	52.40	21	406.72	7	Washington
32.7	39	1.01	45	2.24	29	16.14	47	61.49	31	West Virginia
43.0	25	1.64	24	5.15	13	66.95	7	42.09	41	Wisconsin
35.2	37	1.85	18	1.82	38	43.37	29	49.58	37	Wyoming

FINANCIAL RESOURCES

	Bank Deposits per 1,000 pop.		Loans to Deposits		Loans to Equity		Comm./Ind. Loans per 1000 wkrs.		Comm. Loans/ Total Loans		Venture Capital		Highway Deficiency	
	$	Rank	Ratio	Rank	Ratio	Rank	$	Rank	%	Rank	Score	Rank	%	Rank
Alabama	6,243	38	0.74	29	7.23	37	2,906	30	27	28	0.25	27	0.1	4
Alaska	7,306	26	0.64	39	5.83	47	3,790	11	35	6	0.00	48	41.8	50
Arizona	6,710	34	0.85	17	11.48	5	3,137	24	25	34	0.35	25	13.3	35
Arkansas	6,588	37	0.61	42	6.37	41	2,212	47	24	38	0.01	45	4.4	16
California	7,283	28	0.84	20	11.07	8	3,739	14	29	19	3.37	2	8.1	25
Colorado	6,215	40	0.69	35	7.49	35	2,403	41	27	26	1.96	5	5.8	20
Connecticut	8,505	16	0.94	8	10.95	9	4,687	8	30	14	2.64	3	1.5	8
Delaware	34,514	1	1.87	3	8.80	24	14,656	1	12	49	0.61	15	0.0	1
Florida	7,641	22	0.77	28	9.69	16	2,450	39	20	46	0.22	34	6.7	23
Georgia	6,687	35	0.84	20	8.47	26	3,284	21	28	22	0.84	10	15.0	37
Hawaii	9,742	6	0.67	37	8.37	27	3,785	12	26	30	0.24	31	0.0	1
Idaho	5,861	41	0.80	25	9.22	20	2,886	32	28	25	0.25	27	15.4	39
Illinois	10,084	5	0.79	26	8.17	29	6,653	4	39	1	0.62	14	4.7	18
Indiana	7,475	25	0.58	45	6.26	43	2,902	31	32	10	0.31	26	5.2	19
Iowa	9,119	8	0.54	47	5.32	49	2,085	49	22	43	0.17	36	15.0	37
Kansas	8,708	13	0.60	43	6.49	40	2,926	29	27	27	0.05	42	11.0	33
Kentucky	7,819	20	0.72	32	7.39	36	3,769	13	28	20	0.07	40	2.8	12
Louisiana	1,387	50	3.14	1	7.63	34	3,412	20	30	13	0.14	38	9.2	29
Maine	5,083	46	0.88	12	11.18	7	2,420	40	26	32	0.54	17	9.0	27
Maryland	7,599	23	0.88	12	9.67	17	3,084	26	23	39	0.47	20	30.0	45
Massachusetts	11,565	4	0.93	9	10.46	13	7,081	3	34	7	5.26	1	4.1	15
Michigan	7,153	29	0.73	31	9.11	23	3,660	17	32	11	0.16	37	14.8	36
Minnesota	8,989	12	0.78	27	8.53	25	4,828	7	36	3	0.74	12	3.6	13
Mississippi	6,229	39	0.62	40	6.92	38	2,172	48	22	42	0.02	44	39.2	48
Missouri	8,645	14	0.71	34	7.83	31	3,120	25	24	36	0.07	40	40.0	49
Montana	7,555	24	0.54	47	6.19	44	2,584	34	30	15	0.01	45	9.1	28
Nebraska	9,113	9	0.59	44	6.01	45	2,230	46	20	44	0.05	42	2.1	10
Nevada	5,795	42	1.44	4	12.47	2	2,522	37	16	48	0.47	20	8.4	26
New Hampshire	7,298	27	0.96	7	12.27	3	2,556	35	20	45	0.94	7	10.8	32
New Jersey	8,607	15	0.84	20	10.82	11	4,276	9	29	17	1.81	6	3.8	14
New Mexico	5,596	44	0.67	37	7.64	33	2,459	38	28	24	0.22	34	12.9	34
New York	14,216	2	0.93	9	6.73	39	10,255	2	35	4	0.67	13	6.2	21
North Carolina	6,679	36	0.90	11	9.62	18	3,569	18	29	16	0.50	19	2.5	11
North Dakota	9,014	11	0.54	47	5.62	48	2,394	42	23	41	0.45	22	25.4	44
Ohio	4,552	48	1.30	5	9.48	19	3,728	15	29	18	0.23	33	10.2	31
Oklahoma	7,045	33	0.55	46	6.36	42	2,339	44	27	29	0.13	39	23.6	41
Oregon	5,495	45	0.81	24	9.70	15	3,566	19	39	2	1.97	4	35.2	46
Pennsylvania	9,017	10	0.85	17	10.11	14	5,950	6	35	4	0.38	24	9.3	30
Rhode Island	9,160	7	1.06	6	11.43	6	6,290	5	33	9	0.24	31	24.3	42
South Carolina	4,146	49	0.86	16	9.13	22	2,000	50	26	31	0.25	27	6.5	22
South Dakota	11,600	3	2.00	2	12.55	1	3,719	16	8	50	0.01	45	0.0	1
Tennessee	7,046	32	0.74	29	8.14	30	2,949	28	26	33	0.90	8	36.3	47
Texas	8,407	17	0.68	36	11.92	4	4,151	10	33	8	0.88	9	6.7	23
Utah	5,021	47	0.84	20	9.14	21	2,391	43	24	37	0.42	23	1.0	7
Vermont	8,300	18	0.88	12	10.87	10	3,276	22	23	40	0.55	16	4.4	16
Virginia	7,805	21	0.85	17	10.54	12	3,249	23	24	35	0.52	18	15.6	40
Washington	5,736	43	0.88	12	8.19	28	2,977	27	28	23	0.84	10	0.9	6
West Virginia	7,148	30	0.62	40	5.94	46	2,299	45	18	47	0.00	48	1.7	9
Wisconsin	7,052	31	0.72	32	7.67	32	2,826	33	28	21	0.25	27	24.7	43
Wyoming	7,878	19	0.48	50	5.10	50	2,531	36	31	12	0.00	48	0.2	5

PHYSICAL INFRASTRUCTURE AND AMENITY RESOURCES

Bridge Deficiency		Mass Transit per capita		Energy Costs per KwH		Sewage Needs per capita		Urban Housing Cost		Doctors per 1000 pop.		Found. Grants per 1000 pop.		Tour. Spend. per capita		
%	Rank	Score	Rank	¢	Rank	$	Rank	%	Rank	#	Rank	$	Rank	$	Rank	
48.61	36	0.76	45	5.50	15	115	13	36.72	16	1.62	42	42	49	477.7	49	Alabama
13.87	2	1.99	16	8.86	50	236	33	33.48	5	1.69	41	780	20	1,665.7	7	Alaska
7.33	1	1.88	20	7.45	39	149	20	44.42	40	2.27	14	437	30	1,571.3	11	Arizona
44.66	32	0.76	45	5.37	13	103	12	39.68	30	1.61	43	80	48	761.7	41	Arkansas
25.70	13	2.48	11	7.85	45	175	24	43.61	36	2.68	6	1,633	8	1,226.8	50	California
89.77	50	8.25	3	5.82	21	24	1	34.76	12	2.27	14	864	19	1,609.7	9	Colorado
64.04	48	1.89	19	8.37	46	332	42	32.14	3	3.12	4	875	18	913.9	28	Connecticut
23.71	11	1.39	29	6.57	33	76	6	37.53	22	2.07	20	1,889	6	1,092.1	19	Delaware
21.74	10	1.28	31	7.03	36	202	29	46.28	45	2.40	11	128	44	1,890.3	4	Florida
42.44	29	2.68	9	6.22	30	99	11	37.88	24	1.81	34	554	26	868.8	35	Georgia
26.46	14	4.34	6	7.81	43	203	30	45.38	42	2.61	7	1,526	10	2,887.5	2	Hawaii
28.68	17	0.94	40	3.59	2	126	14	48.87	49	1.40	49	258	38	1,023.5	20	Idaho
28.92	18	2.78	8	7.32	38	248	36	37.85	23	2.26	16	2,045	4	891.8	32	Illinois
43.71	30	1.53	26	5.83	22	278	38	34.62	11	1.60	44	2,922	3	565.5	46	Indiana
47.85	35	1.68	24	6.06	28	228	32	39.01	28	1.59	46	295	34	685.1	43	Iowa
49.65	38	1.49	28	6.58	34	156	22	33.14	4	1.89	31	234	39	847.3	37	Kansas
59.24	45	1.52	27	5.01	7	321	41	38.30	26	1.71	38	302	33	632.7	45	Kentucky
45.28	33	1.56	25	5.84	24	191	27	43.79	37	1.95	26	165	42	835.3	39	Louisiana
29.69	19	0.85	44	6.71	35	236	33	43.95	38	2.01	23	340	31	1,731.1	6	Maine
40.93	27	5.09	5	5.84	24	148	19	38.21	25	3.66	1	271	36	1,108.8	17	Maryland
38.74	24	2.65	10	7.80	42	672	49	41.60	33	3.46	2	1,247	12	1,117.0	16	Massachusetts
31.29	20	1.69	23	6.53	31	341	43	37.19	19	1.94	28	1,020	14	904.8	31	Michigan
28.46	16	3.20	7	5.35	12	223	31	37.33	20	2.29	13	3,607	1	1,245.3	12	Minnesota
52.87	40	0.96	38	6.16	29	160	23	45.28	41	1.40	49	85	47	479.3	48	Mississippi
63.61	47	1.97	17	6.54	32	192	28	33.75	7	2.02	22	738	22	1,002.6	23	Missouri
59.05	44	1.37	30	4.14	3	51	4	43.39	35	1.71	38	906	16	905.4	30	Montana
55.51	41	1.86	21	5.30	11	79	7	35.08	13	1.79	35	1,676	7	815.9	40	Nebraska
14.82	4	0.55	47	5.44	14	96	10	48.86	48	1.74	37	117	46	7,281.7	1	Nevada
43.74	31	1.03	36	8.47	47	700	50	39.97	31	2.10	19	642	23	1,784.9	5	New Hampshire
35.08	23	2.40	12	8.51	48	453	45	33.73	6	2.50	9	1,010	15	1,663.9	8	New Jersey
21.63	9	0.95	39	7.49	40	40	3	48.06	47	1.95	26	292	35	1,218.0	13	New Mexico
68.17	49	9.97	1	8.54	49	668	48	37.00	18	3.30	3	3,464	2	922.7	27	New York
52.55	39	1.09	33	5.17	8	149	20	34.16	9	1.92	30	779	21	1,010.9	22	North Carolina
57.56	43	0.97	37	5.99	27	24	1	44.15	39	1.79	35	203	40	946.6	24	North Dakota
20.56	8	1.80	22	5.83	22	300	40	34.11	8	2.06	21	893	17	674.2	44	Ohio
56.16	42	0.86	43	5.55	17	88	9	30.32	2	1.60	44	566	25	863.0	36	Oklahoma
17.18	5	5.45	4	4.30	4	279	39	38.50	27	2.22	18	1,598	9	1,016.3	21	Oregon
39.66	25	2.01	15	7.20	37	129	15	35.78	14	2.43	10	1,932	5	931.5	25	Pennsylvania
19.37	6	2.40	12	7.84	44	363	44	39.31	29	2.61	7	461	28	559.0	47	Rhode Island
19.98	7	0.94	40	5.58	18	135	17	37.43	21	1.71	38	320	32	1,182.0	15	South Carolina
46.76	34	1.04	35	5.98	26	87	8	40.92	32	1.53	47	179	41	845.0	38	South Dakota
39.84	26	0.92	42	5.28	10	188	26	34.16	9	1.98	24	261	37	883.5	33	Tennessee
34.19	22	2.04	14	5.80	20	133	16	35.95	15	1.85	32	1,333	11	906.4	29	Texas
14.08	3	1.95	18	5.21	9	183	25	45.49	43	1.93	29	149	43	1,216.1	14	Utah
49.19	37	0.00	49	7.72	41	275	37	46.71	46	2.75	5	568	24	2,723.7	3	Vermont
33.86	21	1.09	33	5.66	19	140	18	27.95	1	2.24	17	124	45	1,106.5	18	Virginia
26.98	15	8.69	2	3.45	1	473	46	50.36	50	2.36	12	441	29	928.5	26	Washington
61.28	46	1.15	32	4.80	6	481	47	43.37	34	1.84	33	26	50	739.5	42	West Virginia
41.91	28	0.24	48	5.50	15	240	35	36.98	17	1.96	25	1,231	13	874.1	34	Wisconsin
23.92	12	0.00	49	4.39	5	55	5	45.87	44	1.52	48	531	27	1,574.7	10	Wyoming

Development Capacity Data Sources

Subindex One: Human Resources

High School Graduation

High school graduates in 1987-88 as a percent of 9th grade enrollment in Fall 1984.
Source: U.S. Department of Education, National Center for Education Statistics, unpublished tables, 1989.

Adult Illiteracy

Percent of adult residents, age 18-64, considered "illiterate," 1985.
Source: U.S. Department of Education estimates based on the "English Language Proficiency Survey," 1985, reported in Jack Brizius and Susan Foster, "Adult Literacy," *State Policy Reports*, November 9, 1987.

High School Education Attainment

Percent of heads of household with at least 12 years of education, 1984-1986.
Source: Sheldon Danziger and Jon Haveman, University of Michigan, unpublished tables, 1989. Calculations based on merged Current Population Survey datatape from March 1985, 1986, 1987.

College Education Attainment

Percent of heads of household with at least four years of college, 1984-1986.
Source: Same as High School Education Attainment.

Subindex Two: Technology Resources

Scientists and Engineers in the Workforce

Scientists and engineers per 1,000 workers, 1986.
Source: National Science Foundation, Division of Science Resource Studies, "U.S. Scientists and Engineers," 1987.

Science and Engineering Doctoral Students

Students in science and engineering doctoral programs, per 1,000 population, 1988. Source: National Science Foundation, Division of Science Resource Studies, "Early Release of Summary Statistics on Academic Science/Engineering," October 1989.

Patents Issued

Patents issued per 100,000 residents, 1988.
Source: U.S. Patent and Trademark Office, Office of Documentation, "Technology Assessment and Forecast Report: Patent Counts by Country/State and Year, 1/1963 - 6/1989," October 1989.

University Research and Development

Research and development expenditures at doctorate granting institutions, 1988. Dollars per capita.
Source: Same as Science and Engineering Doctoral Students.

Federal Research and Development

Federal obligations for research and development, FY 1988. Dollars per capita.
Source: National Science Foundation, Division of Science Resource Studies, "Federal Funds for Research and Development, Fiscal Years 1987, 1988 and 1989," 1988.

Subindex Three: Financial Resources

Commercial Bank Deposits

Commercial bank deposits per 1,000 residents, 1988. Dollars.
Source: Federal Deposit Insurance Corporation, Division of Research, unreleased data, 1989. Calculations by CfED.
Note: Figures refer only to domestic bank activities in the U.S.

Loans to Deposits

Commercial banks' total loans as percent of total deposits, 1988. Ratio.
Source: Same as Commercial Bank Deposits.

Loans to Equity

Commercial banks' total loans and leases as percent of total bank equity, 1988. Ratio.
Source: Same as Commercial Bank Deposits.

Commercial and Industrial Loans

Commercial and industrial loans per 1,000 production workers on non-agricultural payrolls, 1988. Dollars.
Source: Federal Deposit Insurance Corporation, Division of Research, unpublished data, 1989. Bureau of Labor Statistics, *Local Area Unemployment Statistics*, unpublished data diskette, 1989. Calculations by CfED.

Commercial and Industrial Loans to Total Loans

Commercial and industrial loans as a percent of total loans of commercial banks, 1988. Percent.
Source: Same as Commercial and Industrial Loans.

Venture Capital Investments

State's share of total national venture fund investments relative to the state's share of national population for 1986 and 1987. Score.
Source: Venture Economics, Inc., "1987 State by State Venture Capital Investments," Wellesley Hills, Massachusetts, 1987 and 1988.

Subindex Four: Physical Infrastructure and Amenity Resources

Highway Deficiency

Percent of interstate highway mileage rated below quality standard for designated use, 1987.
Source: *The Status of the Nation's Highways and Bridges: Conditions and Performance and Highway Bridge Replacement and Rehabilitation Program 1989. Report of the Secretary of Transportation to the United States Congress* (Washington, DC: U.S. Government Printing Office, 1989).

Bridge Deficiency

Percent of bridges on federal aid system rated deficient, 1988.
Source: Same as Highway Deficiency.

Urban Mass Transit Availability

Weighted measure of urban public mass transit systems' carrying capacity and mileage, 1988. Seat miles per capita.
Source: Richard Boyer and David Sevagean, *Places Rated Almanac*, (New York: Simon & Schuster, Inc., 1988).

Energy Cost

Average cost of electricity per kilowatt hour, 1988. Cents.
Source: Edison Electric Institute, "Advance Release of Data for 1988 Statistical Yearbook of the Electric Utility Industry", November 1989.

Sewage Treatment Needs

Estimated backlog of sewage treatment plant unmet needs, per capita, 1987. Dollars.
Source: Environmental Protection Agency, *Assessment of Needed Publicly Owned Wastewater Treatment Facilities in the United States: 1986 Needs Survey Report to Congress*, September 1987.

Urban Housing Cost

Weighted annual average fair market rent schedules, standard two-bedroom unit of housing, metropolitan areas (1988) as a percent of per capita income (1988).
SOURCE: U.S. Department of Housing and Urban Development, "Fair Market Schedules for Use in the Existing Housing Certificate Program," *Federal Register*, September 21, 1989; and *Survey of Current Business*, April 1989. Calculations by CfED.

Doctor Availability

Active federal and non-federal physicians, per 1,000 residents, 1986.
SOURCE: American Medical Association, *Physicians Characteristics and Distribution* (Chicago: American Medical Association, 1987).

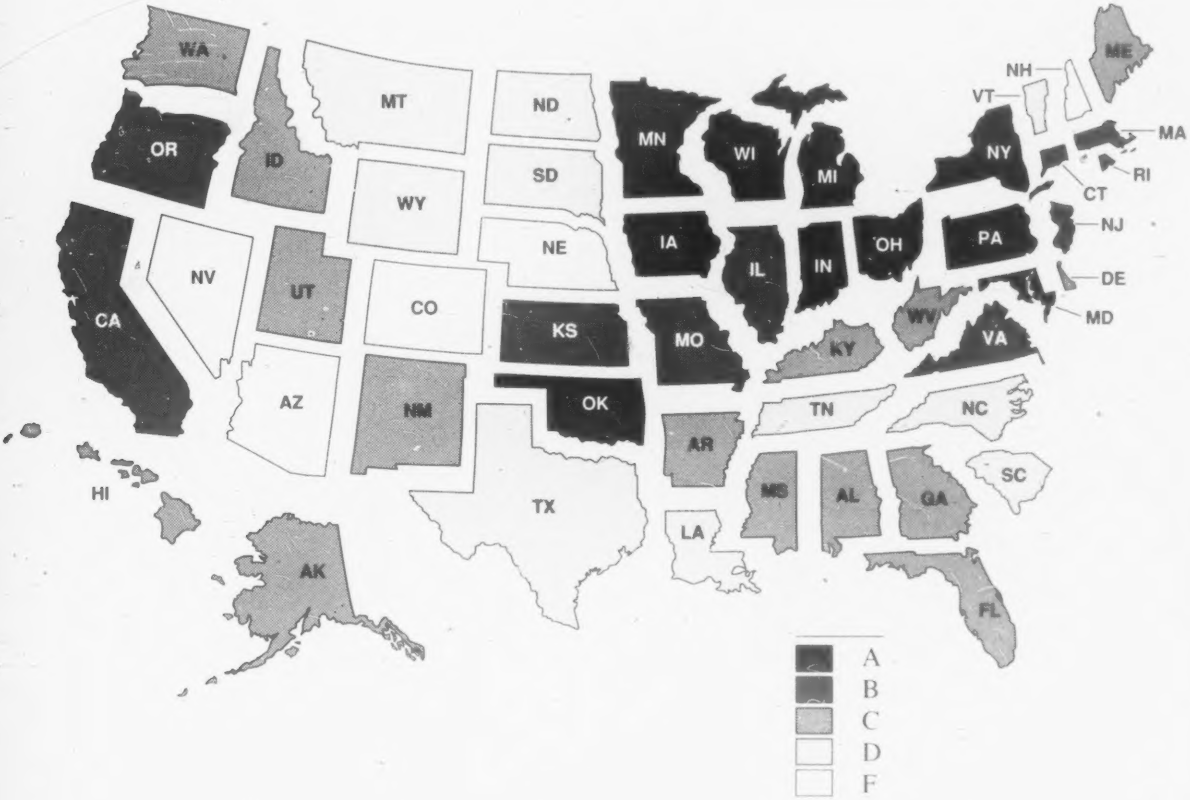
Foundation Grant Funds Distribution

State distribution of foundation grants received, per 1,000 residents, 1986. Dollars.
SOURCE: The Foundation Center, *Grants for Arts and Cultural Programs 1987* (Washington, DC: The Foundation Center, 1988).

Tourism Spending

U.S. domestic travel-generated entertainment and recreation receipts per capita, 1987. Dollars.
SOURCE: U.S. Travel Data Center, *Impact of Travel on State Economies, 1987* (Washington, DC: U.S. Travel Data Center, May 1989).

4 The State Policy Index


WA
OR
CA
ID
NV
UT
AZ
MT
WY
CO
NM
ND
SD
NE
KS
OK
TX
MN
IA
MO
AR
LA
WI
IL
MI
IN
OH
KY
TN
MS
AL
GA
FL
SC
NC
VA
WV
PA
NY
NJ
DE
MD
CT
RI
MA
VT
NH
ME
HI
AK
A
B
C
D
F

State Policy Report Card

	Tax & Regulatory Environment Subindex		Workforce Development Subindex		Technology & Innovation Subindex		International Marketing Subindex		Development Finance Subindex		Local Econ. Dev. Assist. Subindex		Infrastructure & Amenities Subindex		FINAL GRADE	
	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade	Rank	Grade
Alabama	20	B	30	C	16	B	30	C	41	D	5	A	31	C	24	C
Alaska	30	C	49	F	44	D	6	A	29	C	1	A	26	C	29	C
Arizona	26	C	39	D	32	C	48	F	49	F	5	A	45	D	47	F
Arkansas	47	F	37	D	7	A	9	A	19	B	24	C	43	D	31	C
California	1	A	4	A	48	F	21	C	29	C	5	A	3	A	12	B
Colorado	17	B	42	D	32	C	33	C	36	D	46	F	35	C	46	F
Connecticut	37	D	10	A	26	C	20	B	11	B	5	A	7	A	14	B
Delaware	37	D	15	B	32	C	17	B	41	D	24	C	16	B	27	C
Florida	28	C	7	A	32	C	28	C	41	D	24	C	9	A	23	C
Georgia	15	B	41	D	7	A	42	D	41	D	5	A	38	D	33	C
Hawaii	24	C	5	A	16	B	44	D	36	D	[illegible]	F	21	C	34	C
Idaho	8	A	44	D	16	B	3	A	41	D	24	C	48	F	28	C
Illinois	21	C	21	C	7	A	32	C	16	B	5	A	8	A	11	B
Indiana	14	B	6	A	1	A	11	B	3	A	24	C	36	D	8	A
Iowa	11	B	15	B	7	A	15	B	1	A	5	A	23	C	5	A
Kansas	17	B	39	D	1	A	14	B	11	B	24	C	33	C	17	B
Kentucky	4	A	15	B	1	A	43	D	41	D	49	F	32	C	29	C
Louisiana	47	F	26	C	44	D	26	C	3	A	49	F	26	C	42	D
Maine	7	A	32	C	26	C	10	A	16	B	46	F	15	B	21	C
Maryland	42	D	8	A	16	B	7	A	19	B	5	A	4	A	9	A
Massachusetts	30	C	24	C	26	C	37	D	10	A	5	A	10	A	18	B
Michigan	13	B	11	B	1	A	13	B	1	A	1	A	20	B	2	A
Minnesota	2	A	23	C	7	A	1	A	7	A	24	C	6	A	4	A
Mississippi	16	B	13	B	26	C	46	F	29	C	24	C	34	C	32	C
Missouri	8	A	33	C	7	A	36	D	19	B	24	C	18	B	19	B
Montana	34	C	36	D	32	C	39	D	11	B	24	C	37	D	41	D
Nebraska	35	C	45	D	32	C	49	F	29	C	24	C	42	D	48	F
Nevada	44	D	42	D	48	F	41	D	36	D	24	C	46	F	50	F
New Hampshire	40	D	48	F	32	C	50	F	36	D	24	C	29	C	49	F
New Jersey	17	B	22	C	7	A	31	C	29	C	24	C	1	A	16	B
New Mexico	29	C	27	C	16	B	35	C	24	C	24	C	26	C	26	C
New York	6	A	2	A	1	A	22	C	11	B	1	A	2	A	1	A
North Carolina	45	D	18	B	26	C	24	C	41	D	24	C	30	C	39	D
North Dakota	10	A	46	F	32	C	40	D	19	B	5	A	48	F	36	D
Ohio	3	A	3	A	7	A	26	C	11	B	24	C	18	B	7	A
Oklahoma	22	C	18	B	7	A	2	A	3	A	5	A	22	C	6	A
Oregon	26	C	8	A	16	B	25	C	24	C	5	A	11	B	13	B
Pennsylvania	30	C	1	A	16	B	33	C	3	A	5	A	17	B	10	A
Rhode Island	25	C	34	C	16	B	12	B	7	A	24	C	5	A	15	B
South Carolina	22	C	34	C	32	C	23	C	29	C	24	C	39	D	37	D
South Dakota	42	D	46	F	32	C	19	B	36	D	5	A	50	F	45	D
Tennessee	50	F	27	C	32	C	45	D	24	C	5	A	24	C	38	D
Texas	39	D	30	C	16	B	47	F	29	C	24	C	39	D	43	D
Utah	11	B	38	D	32	C	18	B	24	C	5	A	47	F	25	C
Vermont	35	C	20	B	44	D	38	D	24	C	24	C	25	C	40	D
Virginia	40	D	25	C	16	B	8	A	41	D	5	A	14	B	20	B
Washington	46	F	12	B	26	C	5	A	49	F	5	A	13	B	22	C
West Virginia	33	C	29	C	44	D	29	C	19	B	1	A	39	D	35	C
Wisconsin	4	A	13	B	1	A	16	B	16	B	5	A	11	B	3	A
Wyoming	49	F	50	F	48	F	4	A	7	A	24	C	43	D	44	D

4

POLICY

People put off getting an annual check-up for lots of reasons. It takes time and a little advance planning and therefore gets put at the bottom of any day's "To Do" list. It costs money and more pressing needs tend to get higher priority. But perhaps more than anything else, we all know that when the examination is over the doctor is going to come up with a list of things we should be doing but aren't — things that are not easy and won't bring instant results, like losing weight, or starting and sticking to an exercise program, or changing some old habits.

This is the *P* part of the doctor's *S.O.A.P.* procedure, the Plan. It isn't a cure for what ails you as much as a treatment program, a list of steps to take that might make your next check-up better than this one. The doctor makes no promises, often because few courses of treatment have guaranteed outcomes, but also because the future is up to you. Doctors are always a bit wistful when offering this advice; they know some patients will take it in the spirit of a Sunday morning sermon, be chastened by it, and promptly forget it Monday morning. Others, in a burst of good intentions, will rush out to buy a stationary exercise bike and, after a few weeks of furious activity, use it as an expensive coat hanger. But some will actually change their habits, alter the patterns of their lives and, over time, become healthier and happier as a result.

States respond to the challenge of economic development the same way patients respond to the results of an annual check-up. Some prefer to leave the future to fate. Others seek a visible symbol of action, but do not follow-up on a sustained basis.

But real progress in economic development is hard work and not very showy. Progress *begins* when state leaders decide to make time for, and devote some resources to, undergoing a check-up in the first place.

Progress *accelerates* when public and private interests in a state come together to begin to rehabilitate and strengthen the development capacity of the state on the basis of the check-up's results. There is a division of labor and resources. Private industry invests in its people and in technology to increase its productive capacity. The public sector, with its own resources and often by leveraging other public and private resources, invests in its capacity to support private sector development — assuring skilled workers, well-maintained infrastructure, rapid deployment of new technologies, accessible capital, efficient government, fair taxes, and so forth. And public and private interests may join forces on issues crucial to them both — like public education and job training.

Progress is *achieved* when, as a result of these sustained efforts and investments, a state's development capacity improves. Better development capacity nourishes businesses and increases business vitality. Sooner or later, that improved business vitality produces better overall economic performance. The economy is healthier, the business climate more attractive, and people living and working there are better off.

The State Policy Index attempts to capture the first step in this process — the extent to which a state has assembled the tools needed to support economic growth. It does *not* capture either the scale or the skill with which states use these tools. That is, the Index is cumulative, not evaluative. We acknowledge that there is a difference between counting programs and programs that count, but we know of no methodology by which effectiveness could be measured nationwide, even with unlimited resources. Instead, we must wait — along with the citizens of a state — for solid evidence of effectiveness to appear in other Indexes.

A final word of explanation before we explore the findings for the State Policy Index this year: economic policy is a moving target. Ten years ago, one might have measured a state's economic development effort in terms of column inches of advertising copy in *Area Development* magazine, or the number of out-of-state industrial recruitment trips made by state development officials, or the number and extent of tax incentives provided to relocating businesses. But today, we know that the components of state economic development are both more numerous and more complex. As states struggle to build competitive economies, tax and regulatory policies are joined by a broad array of other policies — workforce development, technology deployment, capital access, infrastructure investment, international trade development, and assistance to local government — which, taken together, define the quality of their economic climate.

Consequently, the specific measures used in this Index change from year to year, as do the ways in which they are grouped. Sometimes this alone can change the position of a state from one year to the next, although generally not significantly. More importantly, a state's position on this Index is determined not just by its own efforts, but also by the efforts of other states as well. Thus, a state may be doing exactly the same things it was doing last year and be ranked lower because competing states are doing more. Again, this Index measures effort, not necessarily effectiveness.

Finally, three states did not respond to our comprehensive survey this year or failed to provide documentation to verify their claims. For those that did not respond — Vermont, Colorado and Washington — we were forced to rely only on secondary sources. The effect, generally, is likely to be much lower ranking than might otherwise have been the case.

State Policy Index Findings

Perhaps the most interesting finding in the State Policy Index this year is where states are *not*, rather than where they are. The booming states of high-tech New England are not at the top of the heap. Many southern states are not at the bottom. Nor, for that matter, are the "Rust Belt" states of the Industrial Midwest just followers — they now are the nation's leaders in development policy. All three facts are proof both that it is possible for states to take control of their own economic destinies; and, in the case of New England, we learn that you can never rest on your laurels.

In the face of a sharp economic decline, state policymakers can do one of two things: blame it on "the business cycle" (and occasionally on "unfair competition") and wait for things to improve, or take affirmative steps to change things. In the past, those affirmative steps tended to be limited to providing various inducements to industry located elsewhere to relocate or build a branch plant in the state. Today, state development officials increasingly focus on improving the fundamentals of their economic climate — the skills of the workforce, the condition of infrastructure, the availability of investment capital, the quality of schools and the community environment, and so forth. By strengthening these capacity resources, they gradually strengthen overall economic competitiveness — of individuals, businesses, communities and the state as a whole.

The leaders in the State Policy Index, earning *A*'s or very high *B*'s, have been working overtime on the fundamentals. Almost exclusively from America's industrial heartland, they are the states which at the beginning of the decade were being written off as the inevitable casualties of the new "Post-Industrial Economy." While national political leaders debated whether industries in this region should be left alone or protected, governors and other state leaders sat down with a wide array of private sector leaders and quietly crafted policies designed to help their industries win again in the global economic competition. Nearly all the Industrial Midwest states — Illinois, Indiana, Michigan, Minnesota, Ohio, Pennsylvania and Wisconsin — are leading, having designed highly innovative strategies for increasing the competitiveness of their businesses and their economies. They are seldom found very far from the top of any of the subindexes in this Index.

4

POLICY

Two Plains states — Iowa and Oklahoma — join these industrial leaders at the top of the Policy Index for the first time this year. Neither is a "flash in the pan." Iowa and Oklahoma have been climbing steadily for three years in an effort to find a way out of the deep economic slump that continues to blanket the Plains states. The same cannot be said of their neighbors. From North Dakota to Texas, from Montana to Arizona, the Plains and Intermountain West states dominate the bottom ranks of the Policy Index, with only minor exceptions.

Just below and slightly overlapping the leaders are the former all-stars, the states of southern New England and the Mid-Atlantic region. This year, with the exception of a high *A* for New York and a low *A* for Maryland, some former leaders — Massachusetts, New Jersey and Maine — now earn *B*'s or high *C*'s. These states were among the early innovators in state economic policymaking; their programs were studied and improved upon by the midwestern states now at the top of the Policy list. Of the northeastern states, only New Hampshire does poorly in Policy, preferring to live off the economic spillover from eastern Massachusetts than to strengthen its own development capacity.

Also in the *B* category are two states from the "Developed West" — California and Oregon, followed closely by Utah and Washington.

Solidly established in the *C* range, a long way from the bottom ranks to which it had been accustomed, is the South. Though their progress may not be as dramatic, perhaps, as Iowa's or Oklahoma's, the rise of the southern states to the *C* range is one of the great stories of the 1980s, especially given the limitations of the resources available to them — and it is one of the trends to watch in the 1990s. From Virginia to Florida, from the Atlantic to the Mississippi, only four southern states — South and North Carolina, Louisiana and Tennessee — fall outside the *C* grade range — and not by much. And for the first time this year, not a single southern state earned an *F* in Policy.

That distinction is held instead by what, at first glance, appears a mixed crowd — Arizona, Colorado, Nebraska, Nevada and New Hampshire. In fact, these states have much in common. They are traditionally conservative about the role of government in economic matters. All but Nebraska have experienced very rapid population growth and accompanying high levels of job creation. All have economies traditionally based on primary industries — oil and gas, mining, timber and agriculture (though New Hampshire much less so). The result of these similarities is that there has never been much interest in development policy in these states; they have done pretty well — and in some cases splendidly — simply by "going with the flow." New Hampshire and Nevada are still experiencing rapid population growth and still creating jobs at a high rate. But the others are in trouble. Their grades in Economic Performance and Business Vitality in recent years have been either wobbly or declining and, in the absence of coherent development policies, they have little to fall back upon.

State Policy Subindex Findings

The subindexes of the State Policy Index provide few variations from the findings for the Index as a whole. The Tax and Regulatory Environment subindex is designed to begin to shed light on a state's effort to keep its own house in order and running smoothly. In the absence of reliable information about whether states have and are following some governmental version of a business plan, we look at the stability and fairness of tax and regulatory policies. It is interesting to note that the leaders in this Policy area include a mix of large and small states — from California, Michigan, Minnesota, New York, Ohio and Wisconsin to Idaho, Iowa, Kentucky, Maine and North Dakota.

The states earning *A*'s and *B*'s in the Workforce Development subindex, which combines a wide range of education, training and workplace reforms, include virtually all the nation's most successful state economies — including those beginning to experience serious labor shortages — as well as several states working hard to change conditions within their boundaries: Florida, Kentucky, Mississippi and Oklahoma.

The Technology and Innovation subindex provides a revealing glimpse into the efforts states are making to help increase the development and adoption of new technologies by the companies in their economic base. The top states in this subindex — including Indiana, Michigan and New York — have developed sophisticated and imaginative programs to extend modernization services even to quite small firms within their economies. The states at the bottom of this subindex include two quite different types: those whose economies are relatively young and already composed of technology-oriented firms, such as Colorado and Utah, and those that have yet to focus substantial attention and resources on this issue, including Louisiana, West Virginia and Wyoming.

A new International Marketing subindex is designed to begin to test states' aggressiveness in helping businesses identify and penetrate overseas markets. Those earning the highest grades include some of the nation's acknowledged leaders in international trade development, such as Maryland, Minnesota, Virginia and Washington, as well as several states whose commitment to such investments is large relative to their small populations, such as Idaho, Oklahoma and Wyoming, among others.

In contrast to the Financial Resources subindex of the Development Capacity Index, which tends to indicate where the *quantity* of capital is greatest, the leaders in the Development Finance subindex of this Index are the states that have been the most aggressive at changing the behavior of capital markets, so as to increase the accessibility of capital for development. They include, for example, the decade's leading capital market innovators — Indiana, Massachusetts, Michigan and Pennsylvania — as well as newcomers such as Iowa and Oklahoma.

The Local Economic Development Assistance subindex addresses programs designed to help local governments do economic development and to assist local development organizations. Not surprisingly, the states earning *A*'s in this subindex are those with older, more complex economies and a long history of assistance to local government, such as Connecticut, Massachusetts, Michigan and New York, while those trailing in this subindex tend to have relatively poorly-developed economies and weak state-local linkages, such as Kentucky, Louisiana and Maine.

More so this year than in any previous *Report Card*, the Infrastructure and Amenities Policy subindex is a roster of responsible investors. The leaders are states with complex industrial economies that have made a commitment (sometimes fairly recently) to investing in the upkeep and maintenance of the economy's basic "plumbing and wiring" systems, including the quality of the human environment. At the opposite extreme are states which, due either to shortsightedness, poverty, or both, have underinvested in infrastructure and, as a result, may have weak foundations for future growth and competitiveness.

Subindex One: Tax and Regulatory Environment

A key factor in economic development is the effectiveness, efficiency and fairness of the institutions involved in supporting and regulating economic activity. For the most part this involves how states interact with businesses. The nuts and bolts of a state's interaction with businesses are in its tax system and regulations. The issue confronting states is not whether to have or not have taxes and regulations, but how taxes and regulations are designed and implemented.

4

POLICY

Tax and Fiscal System

While state and local governments commonly use tax abatements and tax incentives to entice out-of-state businesses to relocate, these inducements have relatively little effect on business location decisions. Other factors, such as proximity to markets or quality of life for employees are more important to employers and generally overwhelm whatever short-term advantages may be created by tax differentials.[1] What's more, since most new jobs come from in-state businesses, not businesses attracted from elsewhere, such abatements and incentives simply increase the tax burden on the very businesses that have the most to do with a state's present and future economic health.

But this does not mean that the tax and fiscal system of the state does not affect the economic environment in the state. On the contrary, three aspects of the issue are vital:

- ***Fiscal Stability and Balanced Revenue Sources:*** Although it is impossible to define what the "best" tax and fiscal environment would be for any state, there are several widely-recognized characteristics we *can* identify.[2] The first is that major taxes are balanced so that no individual tax is unduly burdensome, and so that all taxes, taken together, help insulate revenues from recession and economic shocks, to the extent possible. The second is that the tax system — when combined with a fiscal system in which prudent controls guard against wide swings in tax levels and the quality of services — permits the state to provide businesses the assurances they need to make long-term investments.
- ***Tax Fairness:*** It is occasionally argued that an equitably distributed tax system is antithetical to a good business climate — especially when it comes to a state's ability to lure branch plants and other footloose facilities by using special tax breaks. But if state and local governments are to be credible, citizens and businesses *already operating in the state* must be convinced that the taxes they pay are fair, that their tax dollars are being wisely invested and are supporting needed public services, and that one individual or company is not benefitting at the expense of another.
- ***Fiscal Equalization:*** State policies to promote equal fiscal capacity among local governments are essential to a sound business climate. Such policies assure that all communities have an equal ability to provide an adequate level and quality of public service to firms and individuals. Furthermore, they reduce the likelihood that large property tax differentials between nearby communities will influence residential and business location decisions. More importantly, equalizing state fiscal aid can alleviate financial stress and high tax burdens in urban areas where taxable wealth has dropped and public service needs have risen.

Please see *Appendix D* for a full discussion of these tax and fiscal measures.

Regulatory Reform

State regulation is an economic fact of life. Increasingly, and particularly as the overall quality of life in a state becomes a more and more important factor in business location decisions, businesspeople are concerned less about the fact of regulation than about the administration of it. Regulatory reform — not to be confused with regulatory "relief" — has become a significant factor in improving the environment for economic growth. We examine a number of regulatory reform measures, including one-stop permit shops, product liability reform, and small business regulatory alternatives.

- ***One-Stop Permit Shops:*** One stop permit offices provide a single point of contact that streamlines permit applications and related business paperwork, with guaranteed review and decision timetables. This is a proxy for a range of regulatory reforms signalling a state's concern for timely business decisions.
- ***Small Business Regulatory Alternatives:*** The 1980s has brought a stronger apprecia-

tion of the important contribution small businesses make to a state's economy and to the particular problems they face in reaching their full potential, given their size. One way states are helping their small businesses to grow is by requiring regulatory agencies to consider alternatives to any new proposed rules, alternatives that will accomplish the stated objectives of the law, but minimize the economic impact on small businesses.

LIABILITY REFORM

The dramatic rise in cases and costs, as well as the growing concern about the overall impact on economic competitiveness, have prompted efforts by states to reform the product liability system. Among some of the key reforms states have enacted are:

- ***Liability Modification:*** The doctrine of joint and several liability is based on the concept that when the negligence of two or more individuals results in injury to a person, the defendants are jointly and individually liable for damages. Abuse within this doctrine, which has shifted liability for compensation to "deep pockets," is symptomatic of what has gone wrong with the current system. The reforms involve either a form of comparative negotiation that allows the plaintiff to recover damages only if the defendant's negligence is greater than that of the plaintiff, or making each defendant liable for his proportional share based on his degree of fault.
- ***Punitive Damage Limits:*** Punitive damages are those awarded in addition to compensatory damages and designed to punish the defendants for malicious acts. These damages contribute to the impracticability and size of awards. They become the "wild card" in liability litigation because there is no practical way to control jury members once they decide to punish a defendant for an alleged tort. Reforms have limited punitive damages through either explicit caps or through devised formulas based on figures like the defendants' annual income or profit derived from the tort committed.
- ***Compensatory Award Reduction:*** Under the collateral source rule, the jury is not permitted to hear evidence regarding compensation that the plaintiff may receive from other sources. A plaintiff may therefore be doubly compensated since various sources of compensation are not considered. Reforms involve relaxing the collateral source rule to allow the consideration of all sources of funding available for payment of damages.

Subindex Two: Workforce Development

Workforce development policies have vaulted to the forefront of America's economic agenda as we come to recognize that the ability of our nation to compete successfully in world markets will depend heavily on the skills and adaptability of our workers. But the distance we need to travel to meet this critical need for skilled workers appears to grow each and every day. Employers today are already wrestling with shortages of workers with certain skills, ranging from basic math and reading ability to more ad vanced training — and the best studies estimate this need will only grow in magnitude during the 1990s. There is also a perceived decline in the work-readiness of our school systems' graduates, leading to widespread support for significant reform. In this subindex, we explore state activities to support workforce development, both in the workplace and in the schools.

Education

Education reform continues to sweep across the nation. Each year seems to bring a greater understanding in communities that education reform is a keystone to economic development. Progress in this area is slow, and state commitment to education reform must be diligent and patient. This subindex combines a number of individual initiatives under two broad composite measures: Education Support and Education Reform. Neither of these composites is exhaustive; other innovations are being pursued throughout the nation. However, they do indicate the level of effort and can be measured across all states.

EDUCATION SUPPORT

This composite measures the financial commitment states make to education. It includes:

- ***Pupil Spending, K-12***: direct spending per pupil at the elementary and secondary level, adjusted for differences in personal income among states.
- ***Pupil Spending, Higher Education:*** direct spending at the post-secondary level at public colleges and universities, adjusted for differences in personal income among states.
- ***Average Teacher Salary:*** the average salary for all K-12 teachers, from newest to most experienced, for the 1988-89 school year, as a percentage of the average annual pay in the state.
- ***Beginning Teacher Salary:*** an indirect measure of state commitment to attracting new teachers during the 1988-89 school year.
- ***Change in Teacher Salary:*** change during the period in which renewed commitment to education has been a high priority: from the 1980-81 school year to 1988-89.

EDUCATION REFORM

Education reform initiatives generally fall within three categories: improving school accountability, strengthening teachers, and improving student performance.

School Accountability Policies

- ***Comprehensive School Performance Indicators:*** examines whether a state has established comprehensive indicators for measuring school performance, including data about students, school resources and instructional conditions.
- ***School Incentives:*** examines whether a state has established a system of rewards and sanctions tied to school performance levels. Treating schools as units and rewarding incremental improvements helps ensure that improvements and rewards visit even the most disadvantaged schools and districts.

Teacher Policies

- ***Alternative Certification:*** notes whether alternative routes to certification have been established to help alleviate teacher shortages in such key areas as math and science and to bring non-traditionally-trained (but talented) teachers into the profession.
- ***Teacher Incentives:*** identifies whether bonuses, career ladders and other incentives exist to reward and retain the best teachers.
- ***Beginning Teacher Mentoring:*** recognizes programs to support and encourage new teachers.

Student Policies

- ***Early Childhood Education Programs:*** pre-school programs to improve the school-readiness of children from disadvantaged families.
- ***High School Math and Science Requirements***
- ***High School Competency Test Requirement***

Worker Investment

State involvement in investing in the skills, productivity and adaptability of its existing workforce is growing. In the past, the federal government played a major role in this area, but current federal policies are inadequate to meet the needs of upgrading our workforce, and states are finding it necessary to fill the breach. We examine a host of state policies to invest in the existing workforce, as well as to help those out-of-work make the transition into the workforce.

EXISTING WORKFORCE INVESTMENTS

Among the state efforts to invest in the existing workforce are: supporting skill training activities, promoting labor-management committees to improve productivity and adaptability, and providing assistance to employee ownership efforts.

- ***State Training Programs:*** State job training programs are assuming an increasingly important position in state development strategies, with the shift to a knowledge-based economy and the growing skill gaps between the skills workers possess and the skills jobs demand. In this measure, we examine only state-funded job training programs (not JTPA funded) that either provide customized employer-specific training or support joint public-private programs to retrain or upgrade the skills of current workers or the recently unemployed.
- ***Labor-Management Assistance:*** programs providing small seed grants for area and in-plant labor-management committees that promote flexibility and labor-management cooperation.
- ***Employee Ownership Assistance:*** programs providing technical assistance, financing assistance and guidance on management and ownership responsibilities to employees interested in taking over a company threatened with closing due to an owner's retirement, the decision of an absentee parent corporation to close a plant (unrelated to the plan's viability), or similar circumstance.

TRANSFER PAYMENT INVESTMENT

Transfer payments — welfare, unemployment compensation, social security and Medicaid, for example — are typically viewed as drags on the economy. In fact, however, they often stabilize economies and individuals in distress by preserving purchasing power, conserving human capital, maintaining basic living standards and — particularly in rapidly changing economies — reducing resistance to productive change.

Beyond stabilizing incomes and economies, transfer payments can be even more effective contributors to economic development if they are used to encourage and support training, education, re-employment and self-employment. States that develop transfer payment investment (TPI) programs can begin to reduce the fiscal cost of dependency in a state economy, enlarge and improve the workforce, reduce social tension and create the spirit of enterprise and hope that is the backbone of a healthy economy.[3]

Here we examine a variety of efforts to reform the use of transfer payments so as to promote economic independence, including: assessing the comprehensiveness and stability of funding for welfare-to-work programs; and the extent to which Unemployment Insurance is used to encourage and support transition towards self-sufficiency.

Please see *Appendix E* for a full discussion of the these transfer payment investment measures.

- ***Welfare-to-Work:*** In this component, we examine whether a state is actively pursuing welfare-to-work strategies, as evidenced by their participation in work supplementation options that divert grants to pay for employment and training activities, their involvement in self-employment demonstration projects that help welfare recipients start their own businesses, and their provision of adequate benefits to ensure that transfer payment investment efforts are not hampered by poor living standards.
- ***Unemployment Insurance Work Transition:*** These programs include self-employment demonstration projects, use of UI funds for education and training, and use of funds for re-employment bonuses and work-sharing programs.

Subindex Three: Technology and Innovation

For the small- and medium-sized businesses that increasingly drive our economy, staying competitive means having ready access to new technologies and assistance in applying those technologies. Most large corporations have specific divisions for technology development and application, but most businesses of lesser scale do not. Given the speed of change, the fragmentation of markets, and intensifying competition, not just domestically but internationally, businesses lacking the kind of information these resources can provide have little hope of long-term success. In the last decade, states eager to encourage the growth of existing businesses and the birth of new ones have developed mechanisms for providing these vital support services, improving their economic climate in the process.

State-supported technology programs tend to be of two types, those designed to stimulate applied research for business use, especially in areas the state feels it has a competitive advantage, and those designed to assist in modernization of existing businesses and in the creation of new companies.

Stimulating Research

- ***Research and Development Centers:*** Known as "Centers of Excellence" or "Advanced Technology Centers," and usually affiliated with universities, they involve a connection with private industry, and focus on specialized technologies. Often they spin off new companies, enhance the competitiveness of existing firms, and may induce a "critical mass" of expertise that becomes an engine of economic growth for an area.
- ***Research Grants:*** public funding, often requiring private matching funds from business, to pursue applied research that likely will serve the business's needs and the state's economic development goals.
- ***Small Business Innovation Research Program:*** This measures states that help small business tap into the federal government's requirement that all federal agencies with annual research and development budgets of over $100 million set aside 1.25% of these funds to assist small firms in the development of high technology. Assistance can include: promoting the program to the small business community; providing information and technical assistance to SBIR applicants; providing matching grants to SBIR recipients; and helping firms to obtain funding from both private and state sources.

Modernizing Companies

- ***Technology Transfer:*** programs that match promising research with the technical needs of the state's businesses.
- ***Information/Networking:*** programs designed to help private firms, public agencies and universities solve common problems, provide access to data bases, identify sources of expertise, disseminate information on financing, and so forth.
- ***Technology Deployment Assistance:*** includes programs providing companies with help in applying new technologies, evaluating production lines and solving technical problems, which may also offer additional management services like marketing assistance and developing business plans.
- ***Business Incubators:*** funding for publicly- or privately-established facilities that provide below-market rate office and lab space and shared clerical, reception and computer services for start-up companies, often located in or near advanced technology centers or commercial research parks.

Subindex Four: International Marketing

The rise of international competition in virtually every product or service line has forced even small U.S. companies to seek export markets. But financial barriers and lack of information make penetrating these markets difficult. State programs to spur international trade fall into two categories:

Export Promotion

- ***Counseling Services:*** counseling on export procedures, sources of legal assistance, how to quote prices and other assistance, measured by the average number of counseling sessions per month.

- ***Foreign Trade Offices:*** the number of foreign offices run, directly or under contract, by the state to promote export trade.
- ***Trade Seminars:*** the total number of seminars offered by the state to businesses per year, teaching a range of skills needed to export — from financing to documentation or licensing.
- ***Export Finance:*** efforts to provide firms pre- or post-export credit or guarantees.
- ***Trade Staff:*** number of staff working directly on international trade assistance.

Export Information

- ***Market Studies:*** overseas market research and industry studies prepared for companies on their potential for export development. These studies can be completed by state staff, university researchers or others.
- ***Language Bank:*** states that offer businesses foreign language libraries and translation services.
- ***International Newsletters:*** publication notifying businesses about recent trade developments and state export services.
- ***How-to-Export Directory:*** a publication that helps a business understand how to go about the tapping the export market.
- ***Overseas Agent/Distributor Identification:*** efforts to identify qualified individuals overseas who can match in-state companies with foreign markets.
- ***Export Product Directories:*** publications that provide information about products made by in-state firms available for export.

Subindex Five: Development Finance

Financial capital is the "grease" that keeps economic machinery turning smoothly. When capital does not flow to its most productive uses, for whatever reason, the machinery slows. Jobs are not created, new technologies are not developed and commercialized, the higher economic returns delivered by new or expanding enterprises do not occur, and the economic health of the state suffers. The more accessible capital is for a wide range of uses, the better the economic climate is for business.

Existing financial institutions — commercial banks, insurance companies, venture capital firms, investment banks and others — do a pretty good job of assuring the availability of capital for large, well-established corporations. But research indicates that these institutions often fail to provide appropriate kinds and amounts of capital to the enterprises that create the majority of new jobs and economic energy in today's economy: new and young businesses, rapidly expanding businesses, businesses in new economic sectors.[4]

The reasons capital may be unavailable for such enterprises are many. An aversion to risk — even when the potential return may be high — renders some capital sources unavailable. The difficulty and cost of acquiring information on new, young or small firms discourages such investments. That's because the cost of putting together deals is about the same regardless of a business' size; thus, it costs less to put together one or two big deals than many smaller ones. Moreover, political, geographic, racial and gender biases do still exist. And regulatory and taxation policies — such as pension fund investment limitations, usury ceilings and the like — may simply prohibit existing institutions from making capital available to some enterprises, regardless of their soundness or future prospects.

To encourage capital markets to work more smoothly and meet development objectives, state governments have crafted a variety of financial innovations. This subindex examines the types of financing tools made available by new programs, the delivery mechanisms employed, and regulatory changes designed to encourage existing financial institutions to meet a broader range of needs.

Financing Types and Diversity

At each stage in their life cycle — from the start-up of a brand new business to the retooling of a mature one — businesses need different kinds of capital. When the right kind of capital isn't available at a given stage, it can bring the growth of any business to an abrupt halt. To improve the climate for business growth, many states have developed finance programs specifically designed to fill discovered gaps in the spectrum of private financing sources. This measure identifies state-sponsored capital market intermediary institutions that help assure that the full range of business capital needs are met.

- ***Seed Capital Funds:*** state investment funds, generally in the form of equity participation, providing very early, and generally small amount financing to help entrepreneurs prove the viability of a product or business concept not yet in the production stage.
- ***Venture Capital Funds:*** high-risk, start-up or expansion financing, generally equity or convertible debt, to meet needs not met by private venture capitalists: smaller investments, investments in industries not pursued by venture capitalists, or investments in states where private venture capital is unavailable.
- ***Product Development Finance:*** high-risk financing for new product or production process development, generally provided to mature firms and repayable through royalties tied to product sales. Such financing permits states to encourage innovation and modernization in mature firms without exposing the firm to undue risk.
- ***Long-Term Finance:*** low-risk debt financing for plant (repayable from 10 to 30 years) or equipment (repayable from 5 to 10 years) that provides more predictable interest payments than do the increasingly common variable commercial lending rates. In some cases, states are the only source of such capital at fixed rates for small companies.
- ***Medium-Risk Intermediate/Long-Term Finance:*** generally provided on a subordinated or unsecured basis, or secured by "soft" assets such as inventory or accounts receivable.

Leveraging Innovations

While the diversity of state-created business finance programs is important, it is also critical to examine whether states employ innovative delivery mechanisms that offer financing to businesses in the most efficient and effective manner. Finding innovative ways of using limited state resources to leverage significant private resources in the service of public development aims is crucial to improving the business climate. So too is ensuring that capital access programs are flexible enough to meet, for example, the different conditions and needs of regions within the state and of very small enterprises commonly ignored by conventional financial institutions. Several innovative delivery systems have been developed to achieve these objectives:

- ***Leveraged Public Investments:*** direct state investment in private or quasi-public financial institutions specifically designed to channel their resources to investments that meet public aims. Examples include state investments in BIDCOs and BDCs, or in venture capital funds that agree to invest in in-state firms. The state's investment in these institutions is matched or exceeded by private investments.
- ***Tax Credit Finance:*** the provision of state tax credits, typically staged over several years, to private investors who invest in private or quasi-public institutions designed to make investments that achieve state development aims.
- ***Loan Guarantees:*** covering both state and local industrial revenue bonds and conven-

tional financing, these programs are designed to stimulate private investment by having the state absorb some or all the financial risk.

- ***Secondary Market Mechanisms:*** in which states help banks and financial institutions improve their liquidity and the terms of their business loans by purchasing loans the financial institutions originate (such as SBA-guaranteed loans), often obtaining funds for these purchases by issuing bonds.
- ***Linked Deposits:*** designed to alter the lending behavior of banks by tying the state's willingness to deposit its resources in the bank to the bank's willingness to provide financing for sectors or purposes specified by the state. Often state funds are invested at below-market rates in exchange for the bank's agreement to make loans at below-market rates.
- ***Sub-State Development Finance Support:*** direct investment in, state guarantee of, and/or the creation of secondary markets for the financings made by local and regional development finance institutions especially attuned to the opportunities and specialized capital needs of sub-state areas.

Regulatory Innovations

Four of the five trillion dollars in the U.S. economy are controlled by financial institutions that are licensed and regulated by government — banks, savings and loans, and insurance companies, among others. Any policy that makes even a small change in the investment practices of such institutions will have a dramatic effect on the availability of capital to businesses in that economy.

- ***Pension Fund Investment:*** In-state pension funds — many with billions of dollars in deposits — are often legally restricted from investing in the very communities where the people who contribute to and benefit from the fund live. In some cases, statutory lists specify the types of securities the funds can invest in. To free some of these resources for local investment, many states have eliminated the lists altogether, substituting the "prudent investor" language of the federal Employee Retirement Income Security Act, which governs private pension fund investment practices. Under this language, some fund assets can be invested in qualifying in-state businesses, while still protecting the integrity of the fund. Other states have modified their lists to permit some investments in in-state corporate equities, small businesses, SBA loans, limited partnerships with venture capitalists and affordable housing. This measure indicates whether in-state public pension funds are invested in-state in venture capital, secondary markets or other such vehicles.
- ***BDCs and BIDCOs:*** Business Development Corporations (BDCs) are statewide, publicly-chartered, privately-managed corporations, usually capitalized by commercial banks, savings banks or insurance companies. Business and Industrial Development Corporations (BIDCOs) are state-regulated and -chartered, privately managed institutions, also capitalized by private (and, sometimes, public) investors. They differ from BDCs principally in that more than one can be chartered to operate in a state. Both are designed to provide medium- to high-risk debt and equity capital to businesses that are unlikely to get financing from conventional lenders, despite their overall soundness.
- ***Community Reinvestment Acts:*** Several states have enacted their own versions of the federal Community Reinvestment Act of 1977. These state CRA laws often require banks to demonstrate that they have taken steps to meet the credit needs of local businesses, based in the communities where the banks are chartered. CRA laws can also apply whenever banks seek to open or close branches in a community or undergo mergers or acquisitions. We identify which states have such requirements.
- ***Interstate Banking:*** While the acquisition of small in-state banks by larger out-of-state

money center and regional banks may increase competition and customer services, some worry that out-of-state banks will be insensitive to local financing needs. Accordingly, some states have enacted legislation requiring out-of-state banks to make explicit commitments to meet community credit needs as a precondition for state approval of the acquisition.

Subindex Six: Local Economic Development Assistance

When it comes to how the benefits of economic development are distributed, all communities are not created equal. We see this fact of economic life in urban neighborhoods abandoned by the businesses that once supported them, and in rural communities emptied by demographic change. Unlike our more homogeneous competitors, West Germany and Japan, America has long fashioned economic strength from its social diversity. In fact, we are largely a nation of communities, and the capacities of those communities to undertake economic development activities is increasingly seen as a major concern of state development policy.

A recent National Governors' Association study of growing rural counties lays out the key requirements for successful local economic development efforts, which seem as apt for urban areas as rural areas:

". . . growth appears to be the result of sustained, broadly based local economic development activities. The key elements appear to be a long-term, well-organized economic development effort; a pro-growth attitude expressed by a willingness to invest energy and take risks to help businesses; practical assistance to firms in the form of financing, industrial sites and infrastructure; strong partnerships between business leaders and elected officials; an individual (sparkplug) to keep local efforts going; and technical and financial support from state and federal agencies."[5]

In this subindex, we measure the efforts state governments use to support the process of local economic development. We examine whether states undertake four types of support efforts — general economic development planning, regional economic cooperation, project feasibility assessment and program development, and organization capacity building. We only give states credit for these efforts if they formally assign staff or dedicate state funding to these activities.

Community Planning

This type of planning usually involves a broad assessment of economic conditions and trends, an inventory of the extent and nature of the area's economic resources, and the identification of a range of public and private sector actions that can be taken to support economic activity and meet employment needs. Also included in this measure are "prepared communities" programs, also called "certified cities" or "community betterment" programs. These initiatives are usually targeted at communities with less than 50,000 residents. They involve the use of technical assistance staff to train community teams to assess community needs and resources, and draw up and implement plans to improve economic development capacity and address specific development problems and opportunities.

Regional Development Planning

A second variation on technical assistance for general economic development planning is TA programs for regionally-based planning. While most economic development planning is carried out within a single political jurisdiction (that is, county or municipality), there is a growing recognition that because economic activity tends to be regional in nature, economic development efforts must also be regionally-based. With workers frequently crossing jurisdictional boundaries between home and work, and with key economic development resources such as transportation facilities and post-secondary educational facilities serving multi-jurisdictional areas, communities within a region can heighten the effectiveness of economic development efforts through regional coordination. A small number of states have also created regional economic strategy programs which fund regional planning activities. In some cases, states make funding for specific economic development projects contingent on consistency with a regional plan.

Project Feasibility or Program Development

While general development planning can provide communities with strategic direction, more targeted planning efforts are often needed to implement specific strategies. Some technical assistance programs provide funding or staff assistance to examine the feasibility of a specific development project or to help in the design of new programs.

Organization Capacity Building

Organization capacity building occurs in two forms: support for general organization development, and the provision of information and training. Technical assistance for general organization development can be useful when an economic development organization is just getting started and needs initial operating resources and/or guidance on basic organization design, as well as staff training. Technical assistance programs can also be used to help organizations develop and implement organizational plans (legal structure, funding sources, staffing needs, and so forth.). Technical assistance in the form of information and training can provide a basic orientation to economic development concepts and techniques for new organizations, as well as help established organizations to sharpen their skills and develop new activities. They can include sponsorship of economic development training workshops, preparation and distribution of handbooks and other publications, and provision of economic industry and market data. In addition, a large number of states provide economic training workshops, handbooks and other publications and economic (industry/market data provisions) that are important to the success of local economic organizations.

Subindex Seven: Infrastructure and Amenities

With the possible exception of public education, nothing demonstrates more clearly the interdependence of business and government as the public responsibility to build and maintain infrastructure and protect amenities. Of the two, physical infrastructure — roads, bridges and other publicly-constructed facilities — is the most widely understood. But the concept of "amenities" has taken on a decidedly economic meaning as well. In more and more companies, employees are the most valuable resource, and attracting and retaining them can be key to a business's long-term success. Consequently, business and economic development officials have taken a new and much broader interest in what determines the amenity or "quality of life" level in a state.

To begin to measure the extent to which each state is working to address these issues, we examine whether the state maintains adequate public capital budgeting practices through which major infrastructure improvements are built and maintained, offers state-assisted programs to make housing affordable to all, is taking steps to safeguard the environment, and is acting to protect valuable farmland.

Public Capital Budgeting

While the existence of formal capital budgeting practices does not insure against the age-old habit of cutting repair and maintenance investments every time there is a budget crunch, it does suggest how seriously a state takes the challenge of maintaining the roads, bridges, water and wastewater systems, solid waste sites, dams and prisons that form a part of the quality of life picture. In this composite measure, we examine:

- ***Facility Inventory:*** whether states maintain a central unified inventory of public facilities.
- ***Needs Assessments:*** whether states provide regular assessments of facility conditions and investment needs.
- ***Capital Plans:*** whether states develop long-range capital plans to guide annual capital budget requests.

Housing

The plight of the homeless, estimated at between one and three million individuals, of whom perhaps 30 percent are members of families with children, is only the most starkly visible evidence of a dramatic decline in the availability of affordable housing in America. Between 1980 and 1987, the U.S. Department of Housing and Urban Development's budget for housing was cut by 70 percent. Cuts were deepest in support for construction of federally-subsidized rental units: new starts plummeted from 129,400 in 1980 to only 19,000 in 1986. In addition, federal restrictions on state-issued tax-free bonds have made it difficult for states to make up for lost federal support.

As federal support has dropped, housing costs have risen. The average price of a new home has risen much faster than average incomes, locking many out of home ownership. At the same time, the cost of rental housing has risen sharply; gross rents rose 18 percent between 1974 and 1985, while the median income of renters *fell* 12 percent. The result of these trends is overcrowding, deteriorating housing stock, and increasing homelessness.

States are struggling to pick up the slack left by the withdrawal of the federal government. From 1980 to 1987, the number of state housing programs more than tripled. State efforts fall into three categories: increasing affordable housing, providing direct assistance to residents, and meeting the needs of special groups.

Affordability

- ***New Construction Assistance:*** subsidized low-interest loans to for-profit and non-profit developers, deferred payment loans, and interest-free loans and grants for new multiple-unit rental housing.
- ***Rehabilitation Assistance:*** low- or no-interest loans in exchange for equity or resale control until the loan is repaid, remortgaging assistance or forgivable loans, re-use of idle buildings, and mixed-use development, among other techniques.
- ***Pre-Development and Development Cost Assistance:*** grants and subsidized loans to cover the costs of planning, feasibility studies, architect and engineer fees, land acquisition and closing fees; and revolving loans, loan guarantees, and short-term loans to leverage long-term financing for development.

Direct Assistance

- ***Home Ownership:*** including low-interest or interest-free first and second mortgages and loans for downpayment, lease/purchase arrangements, land grants and property tax abatements in disadvantaged neighborhoods, interest-free second mortgages repayable only if resale occurs within a stated period (to discourage speculation), shared equity financing with proportional distributions upon resale, and so forth.
- ***Tenant Assistance:*** including temporary emergency rent payments, rent guarantees, rent subsidies, loan guarantees, energy cost assistance and other programs that forestall homelessness for the most needy.

Special Housing Needs

- ***Homeless:*** programs to prevent homelessness (grants to pay back rent, future rent, and security deposits, as well as loans with deferred payments set to a percentage of income), and shelter development grants, low- and no-interest loans, and revolving loan construction/rehabilitation funds.

- ***Elderly:*** low-cost financing for housing for the elderly, rent subsidies, low-interest mortgages, reverse-equity mortgages for "house-rich, cash-poor" elderly, home energy assistance and repairs, and other home services to support independent living.
- ***Housing Trust Funds:*** established by states to address the special needs of a wide variety of groups and funded through a dedicated fee from real estate transfer taxes, oil overcharge fee windfalls, or lump-sum or annual general fund commitments.

Environment

It is increasingly clear that the quality of a state's environment has an important effect on its perceived economic climate. The reasons are several.

First, the real economic costs of wandering garbage barges, medical waste washing up on beaches, automobile emissions in dense metropolitan areas, trains laden with radioactive waste languishing on rail sidings with no place to go — and the like — are mounting and are borne increasingly by state and local governments.

Second, the health effects of local environmental problems, from air quality warnings to drinking water purity, are having measurable effects in some areas on workforce health and productivity.

Third, as employers trying to recruit scarce workers know only too well, people are making career decisions in part on the basis of perceived amenity levels in the communities where work is offered. Thus, how states respond to these challenges determines, in part, the attractiveness of their economic climate.

Our expanded environment measure examines environmental policy initiatives in four categories: solid waste management, hazardous waste management, air pollution control, and water pollution control.

SOLID WASTE MANAGEMENT

- ***"Bottle Bills":*** laws requiring deposits on glass, aluminum and plastic containers, redeemable from retailers upon return.
- ***Mandatory Recycling:*** including either curbside separation of paper, glass and metals, or establishing percentage recycling of waste stream components.
- ***Government Procurement of Recycled Paper:*** including either price preferences for recycled products or a purchase quantity set-aside.

HAZARDOUS WASTE MANAGEMENT

- ***Waste Minimization:*** credits states with plans, staffs and budgets for programs that offer technical and/or financial assistance for research and implementation of pre-disposal treatment, waste component recycling or inter-industry exchanges, and reduced waste production, as well as other hazardous waste minimization programs.
- ***Property Transfer Law:*** credits states (only two to date) requiring property owners to prove the absence of hazardous wastes prior to ownership transfer.
- ***State Superfunds:*** credits states that have enacted and funded state-level hazardous waste dumpsite cleanup programs similar to the federal "Superfund" program.
- ***"Right-to-Know" Laws:*** credits states that have passed legislation that guarantees workers and residents the right to know the identity and potential dangers of hazardous materials used or stored in their workplace or community.

AIR POLLUTION CONTROL

- ***Toxic Air Pollution Control:*** This recognizes states that have developed programs that meet or exceed federally-mandated requirements to collect and monitor data on toxic air emissions, determine acceptable ambient levels, test facilities for compliance with established standards, issue permits and investigate complaints.

- ***Air Permits and Emissions Fees:*** To strengthen their air pollution control programs and augment inadequate public abatement funds, several states have expanded their permitting programs to establish emissions fees. We count only those states which have both enacted such programs *and* collected fees.

- ***Indoor Air Pollution Control:*** The quality of indoor pollution control programs is determined by the range of locations subject to restrictions, such as smoking prohibitions. We credit states with programs covering ten or more types of locations.

Water Pollution Control

- ***Drinking Water Testing:*** recognizes states that meet or exceed federal requirements to test for drinking water contaminants known to have adverse heath effects, and make the results available to the public.

- ***Groundwater Protection:*** recognizes states that have established numerical standards for levels of contaminants in groundwater supplies.

Farmland Protection

In much of our country, towns were first founded in areas where the farmland was the best. Where those towns have prospered and become cities, their original main asset — prime farmland — is under heavy urban and suburban development pressure. The problem is important both because we need to assure a sustainable supply of reasonably-priced food, and because farmland has important open space value — a respite from concrete, steel and glass. This measure is a composite of the extent to which states have enacted any of several farmland protection initiatives. (We don't include preferential/differential taxation for agriculture because it now exists in every state.)

- ***Right-to-Farm Laws:*** laws that protect farmers and ranchers from certain legal actions against normally accepted farm practices.

- ***Development Rights — Purchase:*** states that may purchase the development rights of farmland by paying the owner the difference between the market value and farm-use value of the land.

- ***Development Rights — Transfer:*** rights that allow qualifying developers to increase development density in designated receiving areas, if they purchase development rights from farmers whose property is in other designated sending areas. This serves to protect the use of land for farming and keeps farmers from being forced off their land.

- ***Agriculture District Ordinances:*** allow farmers to organize land into legally recognized geographic areas restricted to agricultural use.

Endnotes

1. For more background on business climate and taxes, see Karl Seidman, *The Role of Taxation in State Business Climate* (Washington, DC: The Corporation for Enterprise Development, 1987); and *Appendix D* of this *Report Card* for the 1989 *Tax and Fiscal Environment Index*.

2. For a discussion of the merits of a balanced revenue system, see Robert Kleine and John Shannon, "Characteristics of a Balanced and Moderate State-Local Revenue System," in Steve Gold, *Reforming State Tax Systems* (Washington, DC: National Conference of State Legislatures, 1986). For a discussion of the limitations of this approach, see Helen F. Ladd and Dana R. Weist, "State and Local Tax Systems: Balance Among Taxes vs. Balance Among Public Goals," presentation at the Tax Policy Roundtable of Lincoln Institute of Land Policy, May 1987.

3. We do not believe that "coercive" work programs, in which recipients are required to "work off" their benefits, are the most desirable, in as the bulk of reliable data suggests that voluntary programs are cheaper, more effective and better address the true barriers to self-sufficiency. See Robert E. Friedman, *The Safety Net as Ladder: Transfer Payments and Economic Development* (Washington, DC: Council of State Policy and Planning Agencies, 1988).

4. See Lawrence Litvak and Belden Daniels, *Innovations in Development Finance* (Washington, DC: Council of State Planning Agencies, 1979); Lawrence Litvak and Michael Barker, *Pension Funds and Economic Development* (Washington, DC: The Gallatin Institute, 1983); Council for Community Development, Inc., *Indiana's Financial Markets and Economic Development: A Fresh Approach* (Cambridge, MA: Council for Community Development, Inc., January 1984) and Maine Small Business Finance (Cambridge, MA: Council for Community Development, Inc., January 1983); The Corporation for Enterprise Development, *Capital Markets in South Carolina: New Directions for Private and Public Actors* (Washington, DC: The Corporation for Enterprise Development, February 1985); and Peter Kwass and Beth Siegel, *Profile of Michigan's Commercial Banking Industry: Implications for Small Business Capital Availability* (Washington, DC: The Corporation for Enterprise Development, January 1986).

5. DeWitt John Sandra S. Batie and Kim Norris, *A Brighter Future for Rural America? Strategies for Communities and States* (Washington, DC: National Governors' Association, 1988).

State Policy Data

TAX AND REGULATORY ENVIRONMENT

	TAX AND FISCAL SYSTEM*								REGULATORY REFORM				
											Liability Reform		
	Stability/ Balance		Tax Fairness		Fiscal Equalization		Final						
	Score	Rank	Score	Rank	Score	Rank	Score	Rank	One Stop Permits	Small Bus Reg. Alt.	Liability Modification	Punitive Limits	Comp. Award Reduction
Alabama	57.7	30	21.4	46	58.2	11	137.3	36	■		■	■	■
Alaska	20.5	48	35.0	41	68.1	3	123.6	39			■	■	■
Arizona	63.7	25	58.1	20	38.1	34	159.9	31	■	■	■		
Arkansas	70.2	21	44.1	29	46.2	25	160.5	30	■				
California	90.1	7	86.4	2	61.5	7	238.0	1	■		■	■	
Colorado	72.8	20	65.1	15	22.9	48	160.8	28	■		■	■	■
Connecticut	51.2	36	36.7	40	32.3	43	120.2	40	■		■		■
Delaware	55.4	31	65.0	16	51.3	16	171.7	21	■				
Florida	52.7	35	22.2	45	37.7	36	112.6	45		■	■	■	■
Georgia	94.0	4	41.3	33	48.2	21	183.5	14			■	■	■
Hawaii	50.5	37	41.3	33	69.0	2	160.8	28	■		■		■
Idaho	89.8	8	61.8	17	47.4	23	199.0	5			■	■	■
Illinois	58.4	29	43.9	30	34.2	41	136.5	37	■	■	■	■	■
Indiana	93.7	5	37.2	39	43.7	26	174.6	19	■	■	■		■
Iowa	67.6	23	53.3	23	48.6	20	169.5	24	■	■	■	■	■
Kansas	54.3	33	67.9	13	36.5	37	158.7	32	■		■	■	■
Kentucky	78.7	14	40.2	35	63.0	6	181.9	15	■	■	■	■	■
Louisiana	24.1	47	43.3	31	50.5	18	117.9	42			■	■	
Maine	84.4	11	84.1	3	39.6	31	208.1	3	■		■		■
Maryland	66.7	24	70.5	9	40.6	30	177.8	18					
Massachusetts	69.9	22	55.3	21	60.5	9	185.7	12					
Michigan	79.3	13	65.7	14	35.7	38	180.7	16	■		■	■	■
Minnesota	96.5	1	75.4	7	47.4	23	219.3	2	■		■	■	■
Mississippi	54.4	32	47.6	25	64.8	4	166.8	25	■		■	■	
Missouri	77.6	15	44.9	28	48.7	19	171.2	22	■		■	■	■
Montana	20.2	49	69.7	10	26.3	46	116.2	44	■		■		■
Nebraska	50.3	38	59.8	19	22.7	49	132.8	38	■		■	■	
Nevada	41.6	40	38.4	38	59.7	10	139.7	35			■	■	
New Hampshire	24.7	45	35.0	41	26.6	45	86.3	49		■	■	■	
New Jersey	61.6	27	46.5	27	41.[illegible]	29	150.0	34	■		■	■	■
New Mexico	29.2	43	60.0	18	72.5	1	161.7	27	■		■	■	
New York	83.4	12	80.0	4	34.1	42	197.5	6	■	■	■	■	
North Carolina	75.0	19	32.5	43	58.2	11	165.7	26	■		■		
North Dakota	60.3	28	71.4	8	55.8	13	187.5	10			■	■	■
Ohio	94.3	3	69.4	11	42.0	28	205.7	4	■		■	■	■
Oklahoma	85.4	10	50.2	24	48.2	21	183.8	13			■	■	
Oregon	18.4	50	75.8	6	23.7	47	117.9	42	■		■	■	■
Pennsylvania	86.5	9	55.2	22	38.1	34	179.8	17	■	■			
Rhode Island	76.9	18	79.6	5	38.3	33	194.8	7	■	■			
South Carolina	92.8	6	43.2	32	51.1	17	187.1	11	■			■	
South Dakota	24.3	46	13.2	50	20.8	50	58.3	50	■		■	■	
Tennessee	44.6	39	16.3	49	35.3	40	96.2	47					
Texas	37.4	42	18.4	47	35.5	39	91.3	48	■		■	■	
Utah	94.6	2	39.3	36	53.7	14	187.6	9	■		■	■	
Vermont	53.7	34	91.2	1	28.8	44	173.7	20	■	■			
Virginia	77.4	16	38.7	37	38.8	32	154.9	33	■			■	
Washington	38.3	41	16.7	48	63.9	5	118.9	41	■		■		
West Virginia	62.3	26	47.2	26	61.5	7	171.0	23	■				
Wisconsin	77.4	16	68.1	12	42.7	27	188.2	8	■	■	■	■	■
Wyoming	29.0	44	28.0	44	52.6	15	109.6	46	■		■		

* Please refer to *Tax and Fiscal System Index* appendix for further discussion and detail.

WORKFORCE DEVELOPMENT

EDUCATION

	EDUCATION SUPPORT										EDUCATION REFORM	
											Accountability	
	Pupil $, K-12		Pupil $, Higher		Average Salary		Beginning Salary		Salary Change		Perform. Indicators	School Incentives
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank		
Alabama	23.0	47	35	10	1.33	35	1.03	6	8.0	7		
Alaska	40.8	2	80	1	1.49	6	0.97	14	1.6	49		
Arizona	23.1	46	22	27	1.40	18	0.99	10	4.1	32		■
Arkansas	20.9	49	36	6	1.28	43	0.97	14	2.9	39	■	■
California	22.0	48	22	27	1.46	8	0.99	10	6.1	18	■	
Colorado	27.6	23	20	38	1.38	24	0.81	45	3.2	37	■	■
Connecticut	29.1	16	16	46	1.43	16	0.85	40	11.5	1	■	
Delaware	31.3	14	22	27	1.44	12	0.86	38	6.8	13	■	■
Florida	28.4	17	26	18	1.38	24	1.05	4	7.0	11		■
Georgia	20.8	50	29	15	1.31	40	0.87	35	4.6	28	■	■
Hawaii	24.7	39	37	5	1.53	3	1.09	1	10.1	3		
Idaho	24.1	41	30	12	1.29	41	0.86	38	2.2	46	■	■
Illinois	25.7	33	18	43	1.32	39	0.79	48	5.2	23	■	■
Indiana	26.2	30	24	23	1.43	16	0.90	30	7.9	8	■	
Iowa	27.5	25	22	27	1.44	12	1.06	3	4.1	32	■	
Kansas	28.0	20	20	38	1.37	28	0.96	18	5.5	22	■	■
Kentucky	27.9	22	30	12	1.34	33	0.90	30	2.8	40	■	■
Louisiana	28.0	20	26	18	1.16	49	0.81	45	5.9	20	■	
Maine	31.5	13	20	38	1.36	30	0.90	30	6.5	15		
Maryland	27.5	25	20	38	1.51	4	0.92	25	9.6	5		■
Massachusetts	28.3	18	13	48	1.33	35	0.83	42	6.0	19	■	■
Michigan	27.2	27	22	27	1.47	7	0.83	42	4.3	30		■
Minnesota	28.3	18	27	17	1.46	8	0.94	21	5.0	26	■	■
Mississippi	27.2	27	36	6	1.37	28	1.09	1	9.8	4	■	
Missouri	24.6	40	18	43	1.28	43	0.92	25	5.1	24		
Montana	33.2	10	29	15	1.44	12	1.00	7	2.7	42		
Nebraska	25.6	35	21	35	1.39	21	0.97	14	5.1	24	■	
Nevada	23.9	43	24	23	1.40	18	0.95	20	4.5	29		
New Hampshire	23.7	44	8	50	1.29	41	0.92	25	11.2	2	■	■
New Jersey	34.9	6	22	27	1.28	43	0.83	42	6.8	13	■	■
New Mexico	33.1	11	38	3	1.34	33	1.04	5	2.5	45	■	■
New York	37.5	3	20	38	1.39	21	0.87	35	6.2	17	■	■
North Carolina	29.6	15	36	6	1.38	24	0.98	13	3.0	38		
North Dakota	26.9	29	30	12	1.35	32	0.94	21	2.7	42	■	■
Ohio	27.6	23	21	35	1.36	30	0.79	48	5.7	21	■	■
Oklahoma	24.0	42	24	23	1.23	47	0.87	35	2.8	40	■	
Oregon	32.6	12	22	27	1.50	5	0.96	18	4.7	27	■	■
Pennsylvania	33.5	9	17	45	1.45	10	0.93	24	7.1	10	■	
Rhode Island	35.3	4	14	47	1.69	1	0.91	29	4.2	31	■	■
South Carolina	25.8	32	38	3	1.39	21	1.00	7	2.7	42		
South Dakota	25.7	33	22	27	1.33	35	0.99	10	3.9	34		
Tennessee	25.0	38	31	11	1.33	35	0.88	33	7.7	9	■	■
Texas	25.1	37	25	21	1.25	46	0.92	25	3.7	35	■	
Utah	23.3	45	26	18	1.22	48	0.81	45	2.0	47	■	
Vermont	34.9	6	12	49	1.44	12	0.88	33	9.4	6		■
Virginia	25.5	36	25	21	1.38	24	0.94	21	6.9	12	■	■
Washington	26.2	30	23	26	1.40	18	0.85	40	3.3	36	■	
West Virginia	35.1	5	36	6	1.13	50	0.78	50	0.8	50	■	
Wisconsin	34.0	8	21	35	1.57	2	0.97	14	6.3	16		
Wyoming	53.7	1	46	2	1.45	10	1.00	7	2.0	47		

WORKFORCE DEVELOPMENT

EDUCATION						WORKER INVESTMENT							
EDUCATION REFORM						EXISTING WORKFORCE			TRANSFER PAYMENT				
Teacher Policies			Student Policies						Welfare-to-Work		Unemp. Insur.[1] Work Transition		
Altern. Certif.	Teacher Incents.	Teacher Mentors	Preschool Programs	Sci. Math Reqs. Units	H.S. Comp. Test	Training Program	Lab. Mgmt. Assist.	Empl. Ownshp	Score	Rank	Score	Rank	
				4		■		■	150	50	151	36	**Alabama**
■		■		4					101	28	151	36	Alaska
■			■	5	■	■			132	39	151	36	**Arizona**
■	■		■	4	■	■			142	45	151	36	Arkansas
			■	0		■		■	63	11	102	18	**California**
■		■	■	5		■			79	20	200	50	Colorado
■		■	■	4		■		■	28	4	200	50	**Connecticut**
■	■	■	■	6	■	■		■	134	40	151	36	Delaware
■		■		4	■	■			93	24	151	36	**Florida**
■		■		4	■	■			140	43	200	50	Georgia
	■	■		4	■	■		■	105	31	200	50	**Hawaii**
			■	3		■			126	37	200	50	Idaho
		■	■	8	■	■	■	■	39	5	102	18	**Illinois**
	■		■	11		■	■		91	23	200	50	Indiana
				4		■	■		25	3	200	50	**Iowa**
■		■	■	5		■			79	20	151	36	Kansas
■		■	■	6	■	■	■		140	43	200	50	**Kentucky**
	■	■		0	■	■			145	46	151	36	Louisiana
	■	■	■	5	■	■			60	9	200	50	**Maine**
■	■		■	0		■		■	43	6	151	36	Maryland
■			■	0		■		■	71	14	151	36	**Massachusetts**
			■	0		■	■	■	18	1	200	50	Michigan
■	■	■		4	■	■	■		19	2	102	18	**Minnesota**
■	■	■	■	4		■			100	27	200	50	Mississippi
■				3		■			137	41	151	36	**Missouri**
		■		0	■	■		■	114	33	200	50	Montana
			■	3	■	■			120	34	200	50	**Nebraska**
■				4		■			137	41	200	50	Nevada
■	■		■	3				■	124	35	200	50	**New Hampshire**
■	■	■		4	■			■	94	25	151	36	New Jersey
	■	■	■	4	■	■			130	38	200	50	**New Mexico**
■	■	■		4	■	■	■	■	77	18	151	36	New York
				4		■			102	29	200	50	**North Carolina**
■	■	■	■	3	■	■			104	30	200	50	North Dakota
■		■	■	4	■	■	■	■	88	22	200	50	**Ohio**
		■	■	4	■	■			71	14	151	36	Oklahoma
■	■	■	■	6		■		■	67	12	102	18	**Oregon**
			■	4	■	■	■	■	71	14	151	36	Pennsylvania
	■	■	■	5		■			62	10	200	50	**Rhode Island**
■		■		4		■			145	46	200	50	South Carolina
	■	■	■	4	■				112	32	200	50	**South Dakota**
■	■		■	5	■	■	■		147	48	200	50	Tennessee
	■	■	■	4		■			147	48	151	36	**Texas**
■			■	5	■	■			70	13	200	50	Utah
■		■	■	6	■	■			53	7	151	36	**Vermont**
	■	■	■	2		■			94	25	200	50	Virginia
■				4		■		■	72	17	53	1	**Washington**
			■	4		■	■	■	77	18	200	50	West Virginia
				0		■	■	■	56	8	200	50	**Wisconsin**
					0				125	36	200	50	Wyoming

[1] Please refer to *Transfer Payment Investment Index* appendix for further discussion and detail.

	TECHNOLOGY AND INNOVATION							INTL. MKTG.		
	RESEARCH			MODERNIZATION				EXPORT PROMOTION		
								Counseling Services		Foriegn Offices
	R&D Centers	R&D Grants	SBIR	Tech. Transfer	Info. Network	Tech. Deploy.	Incubators	# 100M	Rank	#
Alabama		■		■	■	■	■	23.50	19	3
Alaska		■				■		97.47	3	3
Arizona	■		■			■		2.89	47	1
Arkansas	■	■	■	■		■	■	30.97	12	3
California		■						0.53	48	4
Colorado	■			■	■			24.32	17	2
Connecticut		■	■		■		■	13.68	39	2
Delaware	■		■			■		18.18	34	2
Florida		■		■	■			3.07	46	2
Georgia	■		■	■	■	■	■	18.75	29	4
Hawaii	■		■	■		■	■	22.87	20	2
Idaho	■		■	■		■	■	100.10	2	2
Illinois		■	■	■	■	■	■	18.45	31	9
Indiana	■	■	■	■	■	■	■	25.11	16	5
Iowa	■	■	■	■		■	■	21.17	23	3
Kansas	■	■	■	■	■	■	■	16.08	36	2
Kentucky	■	■	■	■	■	■	■	0.00	49	2
Louisiana				■		■		27.15	13	3
Maine		■	■	■	■			70.48	6	0
Maryland	■			■	■	■	■	32.30	11	3
Massachusetts	■	■	■			■		0.00	49	2
Michigan	■	■	■	■	■	■	■	21.51	21	3
Minnesota	■	■	■	■	■	■		21.37	22	13
Mississippi	■			■		■	■	11.42	43	5
Missouri	■	■	■	■	■		■	11.68	41	3
Montana		■		■		■		37.31	8	2
Nebraska	■	■				■		18.74	30	0
Nevada					■			9.43	44	3
New Hampshire			■			■	■	18.23	33	0
New Jersey	■	■	■	■		■	■	32.38	10	2
New Mexico	■	■	■	■	■			33.11	9	0
New York	■	■	■	■	■	■	■	19.56	28	6
North Carolina	■				■	■	■	11.49	42	5
North Dakota	■			■		■		15.08	38	1
Ohio	■	■	■	■	■		■	18.40	32	3
Oklahoma	■	■	■	■	■		■	70.79	5	4
Oregon		■		■	■	■	■	23.71	18	3
Pennsylvania	■	■	■			■	■	4.16	45	3
Rhode Island	■	■	■	■	■			83.42	4	3
South Carolina					■	■	■	17.18	35	2
South Dakota			■		■	■		20.98	24	0
Tennessee	■			■		■		20.33	27	6
Texas		■		■	■	■	■	13.11	40	1
Utah	■				■		■	26.61	15	3
Vermont				■			■	62.95	7	2
Virginia	■	■		■		■	■	20.68	25	5
Washington	■			■		■	■	27.06	14	2
West Virginia	■					■		15.92	37	1
Wisconsin	■	■	■	■	■	■	■	20.58	26	4
Wyoming		■						212.31	1	1

INTERNATIONAL MARKETING

EXPORT PROMOTION					EXPORT INFORMATION						
Trade Seminars #/100M	Trade Seminars Rank	Export Finance	Trade Staff #/100M	Trade Staff Rank	Market Studies	Language Bank	Trade Newsletter	How-To Directs.	Agency Dist. ID	Export Directs.	
3.88	13		3.88	22	■	■	■		■		**Alabama**
15.59	13	■	31.19	1		■	■		■	■	Alaska
1.73	41		1.73	40	■		■		■	■	**Arizona**
8.67	13	■	2.06	37	■	■	■		■	■	Arkansas
0.53	9	■	1.24	46	■	■	■		■	■	**California**
4.86	27	■	2.13	36	■	■			■		Colorado
7.29	27	■	4.26	15	■		■		■	■	**Connecticut**
10.61	27		4.55	14	■		■	■	■	■	Delaware
6.79	27		2.42	34	■		■	■	■	■	**Florida**
1.25	9		4.06	19	■				■	■	Georgia
10.98	27		10.06	2					■	■	**Hawaii**
15.02	27		6.51	6	■	■	■	■	■	■	Idaho
4.33	2	■	1.82	38	■				■	■	**Illinois**
0.36	5	■	3.41	25	■	■	■		■	■	Indiana
8.47	13		4.23	16	■	■		■	■	■	**Iowa**
2.81	27	■	5.23	9		■	■	■	■	■	Kansas
0.81	27		2.96	30			■	■	■	■	**Kentucky**
9.05	13	■	3.17	29	■			■	■		Louisiana
9.95	46	■	3.32	26	■		■	■	■	■	**Maine**
3.88	13	■	4.09	18	■		■	■	■	■	Maryland
2.04	27		1.19	47	■		■	■	■	■	**Massachusetts**
1.61	13	■	3.23	27	■		■	■	■	■	Michigan
16.95	1	■	6.97	5	■	■	■	■	■	■	**Minnesota**
2.28	5		3.43	24	■				■	■	Mississippi
4.67	13	■	2.92	31	■				■	■	**Missouri**
2.49	27		4.98	10				■	■	■	Montana
6.25	46		1.25	45		■		■	■	■	**Nebraska**
15.09	13		2.83	32		■	■			■	Nevada
0.00	46		0.91	50			■	■		■	**New Hampshire**
2.07	27	■	3.89	21			■			■	New Jersey
9.27	46		1.32	44		■		■	■	■	**New Mexico**
1.96	3	■	2.18	35			■	■	■	■	New York
3.98	5		2.76	33	■	■	■		■	■	**North Carolina**
9.05	41		1.51	43	■	■		■	■		North Dakota
1.10	13		3.22	28	■	■	■		■	■	**Ohio**
10.11	9	■	3.98	20	■	■	■	■	■	■	Oklahoma
6.57	13		4.74	12	■		■	■	■	■	**Oregon**
0.08	13	■	1.04	49			■			■	Pennsylvania
5.03	13		6.03	7	■		■	■	■	■	**Rhode Island**
3.44	27	■	4.58	13		■	■		■	■	South Carolina
6.99	46		5.59	8	■	■	■		■	■	**South Dakota**
2.44	3	■	1.63	41				■	■		Tennessee
2.98	41	■	1.07	48	■			■		■	**Texas**
8.87	13		7.10	4	■	■			■	■	Utah
23.38	27		1.80	39	■	■				■	**Vermont**
6.67	5	■	3.50	23	■		■	■	■	■	Virginia
9.09	27	■	4.76	11		■	■	■	■	■	**Washington**
9.55	41	■	1.59	42	■	■	■			■	West Virginia
6.18	9	■	4.12	17			■	■	■	■	**Wisconsin**
42.46	41	■	8.49	3	■		■	■	■	■	Wyoming

DEVELOPMENT FINANCE

	FINANCING TYPES AND DIVERSITY					LEVERAGING INNOVATIONS			
	Seed Capital	Venture Capital	Product Devmnt.	Long-Term Finance	Med. Risk Finance	Leveraged Investments	Tax Credit	Loan Guarantees	Secondary Market
Alabama				■					
Alaska		■	■	■				■	■
Arizona				■					
Arkansas	■			■	■	■		■	
California					■			■	
Colorado				■					■
Connecticut	■	■	■	■	■	■		■	
Delaware				■					
Florida	■			■					
Georgia				■					
Hawaii			■	■	■				
Idaho									
Illinois	■	■	■	■	■	■			
Indiana	■	■	■	■	■	■	■	■	
Iowa	■	■	■	■	■	■	■	■	
Kansas	■	■		■		■	■	■	
Kentucky				■		■	■		
Louisiana	■	■	■	■	■	■	■	■	
Maine		■		■	■		■	■	■
Maryland				■	■			■	
Massachusetts		■	■	■	■	■	■	■	
Michigan	■		■	■	■	■	■	■	
Minnesota	■	■	■	■	■	■		■	■
Mississippi		■		■	■		■	■	
Missouri	■			■			■	■	
Montana	■	■		■	■		■	■	■
Nebraska	■	■		■					
Nevada				■	■				
New Hampshire				■				■	
New Jersey				■	■			■	
New Mexico		■	■	■	■	■			
New York		■		■	■			■	
North Carolina			■		■				
North Dakota		■			■		■	■	
Ohio	■		■	■				■	
Oklahoma	■	■	■	■	■	■	■	■	■
Oregon	■			■				■	
Pennsylvania	■	■	■	■	■	■		■	
Rhode Island			■	■	■		■	■	
South Carolina		■		■	■		■		
South Dakota				■				■	
Tennessee	■				■	■			
Texas			■					■	
Utah			■			■			
Vermont		■		■			■	■	
Virginia				■				■	
Washington				■					
West Virginia		■		■	■		■	■	
Wisconsin	■	■		■					■
Wyoming		■		■	■	■		■	

DEVELOPMENT FINANCE						LOCAL ECON. DEV. ASSIST.				
LEVERAGING		REGULATORY INNOVATIONS								
Linked Deposits	Sub-State Support	Pension Investments	BDCs/ BIDCOs	CRA Laws	Interstate Banks	Community Planning	Reg. Dev. Planning	Feasblty. Prog. Dev.	Organiz. Capacity	
■						■		■	■	**Alabama**
						■	■	■	■	Alaska
						■		■	■	**Arizona**
					■	■			■	Arkansas
	■		■			■		■	■	**California**
		■						■		Colorado
		■		■		■		■	■	**Connecticut**
			■			■		■		Delaware
								■	■	**Florida**
			■			■		■	■	Georgia
									■	**Hawaii**
			■		■	■			■	Idaho
■					■	■	■		■	**Illinois**
	■		■		■	■		■		Indiana
■	■	■	■			■		■	■	**Iowa**
	■	■	■			■			■	Kansas
										Kentucky
■	■				■					Louisiana
■					■	■				**Maine**
■			■		■	■		■	■	Maryland
		■	■	■		■		■	■	**Massachusetts**
	■	■	■		■	■	■	■	■	Michigan
	■				■	■			■	**Minnesota**
						■			■	Mississippi
■		■				■			■	**Missouri**
■			■			■			■	Montana
			■		■	■			■	**Nebraska**
					■	■			■	Nevada
			■			■			■	**New Hampshire**
					■			■	■	New Jersey
			■			■			■	**New Mexico**
	■	■	■	■	■	■	■	■	■	New York
						■			■	**North Carolina**
■		■	■			■		■	■	North Dakota
■	■	■			■			■	■	**Ohio**
■			■			■	■		■	Oklahoma
		■	■			■	■	■		**Oregon**
■	■	■			■		■	■	■	Pennsylvania
		■	■	■	■	■		■		**Rhode Island**
			■			■			■	South Carolina
					■	■		■	■	**South Dakota**
	■		■			■		■	■	Tennessee
■		■				■			■	**Texas**
		■		■	■	■		■	■	Utah
	■				■	■			■	**Vermont**
						■		■	■	Virginia
						■		■	■	**Washington**
■				■		■	■	■	■	West Virginia
■		■	■		■	■		■	■	**Wisconsin**
■	■	■	■		■	■		■		Wyoming

INFRASTRUCTURE AND AMENITIES

	PUBLIC CAPITAL BUDG.			HOUSING								ENVIRONMENT		
				Affordability			Direct Assistance		Special Needs			Solid Waste		
	Facility Inventory	Needs Assess.	Capital Plans	New Const. Assist.	Rehab. Assist.	Dev. Cost Assist.	Home Ownshp.	Tenant Assist.	Homeless	Elderly	Trust Funds	Bottle Bills	Mandatory Recycling	Paper Procure.
Alabama	■	■	■											
Alaska	■				■	■	■		■	■				■
Arizona		■	■							■				
Arkansas				■						■				
California	■	■	■	■	■	■	■	■	■	■		■		■
Colorado				■	■	■			■					■
Connecticut	■		■	■	■	■	■	■	■	■	■	■	■	■
Delaware	■	■	■	■	■	■	■	■	■	■	■	■		
Florida	■	■	■		■	■	■			■	■		■	■
Georgia				■	■	■			■					
Hawaii	■		■	■	■	■	■	■	■	■	■			
Idaho														
Illinois	■	■	■	■	■		■		■	■				■
Indiana				■										■
Iowa				■	■		■		■		■	■		■
Kansas		■	■	■	■					■				
Kentucky	■			■			■			■	■			
Louisiana	■	■	■	■			■			■			■	
Maine	■			■	■	■	■		■	■	■	■	■	■
Maryland	■	■	■	■	■	■	■	■	■	■	■		■	■
Massachusetts		■	■	■	■	■	■	■	■	■	■	■		■
Michigan	■	■	■	■	■				■			■		■
Minnesota	■	■	■	■	■	■	■		■	■	■		■	■
Mississippi	■	■	■	■			■							
Missouri	■	■	■	■	■	■	■	■	■					■
Montana				■			■		■					
Nebraska	■			■						■				
Nevada	■	■	■				■							
New Hampshire		■	■				■				■			■
New Jersey	■	■	■	■	■	■	■	■	■	■	■		■	■
New Mexico	■	■	■		■		■	■						
New York	■	■	■	■	■	■	■	■	■	■	■	■	■	■
North Carolina			■	■		■	■	■		■	■			
North Dakota														■
Ohio	■		■	■	■	■	■		■	■				■
Oklahoma	■	■	■		■		■		■					■
Oregon	■	■	■			■				■		■	■	■
Pennsylvania		■	■		■		■	■	■	■			■	■
Rhode Island	■	■	■	■	■	■	■	■	■	■	■		■	■
South Carolina							■							
South Dakota					■		■	■	■					
Tennessee	■	■	■	■	■		■			■				
Texas	■													■
Utah									■					
Vermont		■	■		■	■				■	■	■	■	■
Virginia	■	■	■	■	■			■	■					
Washington	■	■	■	■	■				■		■		■	■
West Virginia				■		■	■							
Wisconsin		■	■	■	■	■	■		■	■			■	■
Wyoming	■	■	■											

INFRASTRUCTURE AND AMENITIES

ENVIRONMENT									FARMLAND PROTECTION				
Hazardous Waste				Air Pollution			Water Pollution						
Waste Minimiz.	Property Transfer	State Superfund	Right-to Know Laws	Toxic Control	Permits Emissions	Indoor Air	Drinking Water	Ground-Water	Right-to Farm Laws	Dev. Rts. Purchase	Dev. Rts. Transfer	Agri. Dist. Ordin.	
■		■	■	■	■		■		■				**Alabama**
■		■	■	■	■	■	■	■	■				Alaska
		■					■	■	■				**Arizona**
		■			■				■		■		Arkansas
■		■	■	■	■	■	■	■	■		■	■	**California**
				■	■	■	■	■	■				Colorado
■	■	■	■	■	■	■	■		■	■			**Connecticut**
			■	■	■		■		■				Delaware
■		■	■			■	■	■	■		■		**Florida**
■				■	■			■	■				Georgia
■		■		■		■	■		■			■	**Hawaii**
				■	■	■		■	■				Idaho
■		■	■	■	■		■	■	■			■	**Illinois**
■	■	■	■	■	■		■		■				Indiana
■	■	■	■	■	■	■	■		■			■	**Iowa**
		■	■	■	■	■	■		■				Kansas
■		■	■	■	■				■			■	**Kentucky**
		■	■	■	■				■				Louisiana
		■	■			■	■	■	■	■	■	■	**Maine**
		■	■	■	■		■	■	■	■	■	■	Maryland
■		■	■	■	■		■	■	■	■			**Massachusetts**
■		■	■	■		■	■	■	■				Michigan
■	■	■	■		■	■	■	■	■			■	**Minnesota**
■		■		■	■				■				Mississippi
		■	■	■			■	■	■				**Missouri**
		■	■		■	■		■	■				Montana
				■		■	■	■	■				**Nebraska**
				■	■	■							Nevada
		■	■	■	■		■	■	■	■			**New Hampshire**
■	■	■	■	■	■	■	■	■	■	■	■	■	New Jersey
		■			■	■	■	■	■				**New Mexico**
■		■	■	■	■	■	■	■	■		■	■	New York
■			■	■				■	■			■	**North Carolina**
			■		■	■			■				North Dakota
■		■	■	■	■		■		■			■	**Ohio**
■		■	■	■	■		■	■	■				Oklahoma
■		■	■	■	■	■	■	■	■			■	**Oregon**
■		■	■	■			■		■	■	■	■	Pennsylvania
■			■	■	■	■	■		■	■			**Rhode Island**
■		■		■	■		■	■	■				South Carolina
				■			■	■					**South Dakota**
■		■	■		■			■	■				Tennessee
■		■	■	■	■				■				**Texas**
			■	■		■	■		■				Utah
		■	■	■			■		■	■			**Vermont**
			■	■	■		■	■	■		■	■	Virginia
■		■	■	■		■			■		■		**Washington**
		■	■	■	■				■				West Virginia
■		■	■	■	■	■	■	■	■			■	**Wisconsin**
				■	■		■	■					Wyoming

State Policy Data Sources

Note: As in past years, CfED supplements all the information about state programs and policies collected from secondary sources with a CfED State Policy Survey. To conduct the survey, CfED attempts to establish a consistent contact in each state government, designated by the Governor's office, to respond to the survey. The CfED State Policy Survey was distributed in November; data gathered on the survey are generally current as of December 1989.

This year the CfED Survey covered every measure in the State Policy Index except: the Tax and Fiscal System measures, the Education Support measures, and the Transfer Payment Investment measures. Only three states — Colorado, Vermont and Washington — did not respond to the survey.

Subindex One: Tax and Regulatory Environment

Tax and Fiscal System

- **Fiscal Stability and Balanced Revenue Sources**
  Assessment of fiscal stability and balance of revenue sources, by state. Score.
  SOURCE: The Corporation for Enterprise Development, "The Tax and Fiscal System Index," research report for the Economic Climate Project, December 1989.
  NOTE: Please see *Appendix D: Tax and Fiscal System Index* for complete text of report.
- **Tax Fairness**
  Assessment of tax fairness, by state. Score.
  SOURCE: Same as Fiscal Stability and Balanced Revenue Sources.
- **Fiscal Equalization**
  Assessment of fiscal equalization, by state. Score.
  SOURCE: Same as Fiscal Stability and Balanced Revenue Sources.
- **Final Score**
  Assessment of tax and fiscal system, by state. Score.
  SOURCE: Same as Fiscal Stability and Balanced Revenue Sources.

Regulatory Reform

- **One-Stop Permit Shops**
  States with one-stop permitting systems, 1989.
  SOURCE: U.S. Small Business Administration, Office of Advocacy, *Directory of State Business Issues: Looking Toward the Future* (Washington, DC: Government Printing Office, October 1985); and U.S. Small Business Administration, Office of Advocacy, "State Small Business Activities," updated, unpublished table, 1986.
- **Small Business Regulatory Alternatives**
  States that require their regulatory agencies to consider alternatives to new proposed rules, so as to accomplish the stated objectives of the law, but minimize the economic impact on small businesses, 1989.
  SOURCE: Office of Advocacy, US Small Business Administration, *The State and Small Businesses: 1989 Edition*, (Washington, DC: Government Printing Office, 1989).

Liability Reform

- **Liability Modification**
  States that have enacted liability reforms that involve either a form of comparative negotiation, or that make each defendant liable for his or her proportional share based on degree of fault, 1989.
  SOURCE: SRI Center for Economic Competitiveness, *State Regulatory Reform and Economic Competitiveness* (Menlo Park, CA: SRI International, 1989); and the American Tort Reform Association, "Successful Tort Reform Efforts of 1986, 1987 and 1988," factsheet, 1989.

- **Punitive Damages Limit**
  States that have limited punitive damages using either explicit caps or devised formulas based on figures like the defendants' annual income or profit derived from the tort committed, 1989.
  Source: Same as Liability Modification.
- **Compensatory Awards Reduction**
  States that have enacted reforms involving the relaxation of the collateral source rule, to allow juries to consider all sources of funding available for payment of damages to the plaintiff, 1989.
  Source: Same as Liability Modification.

Subindex Two: Workforce Development

Education

Education Support

- **Pupil Spending, K-12**
  Current expenditures for public elementary and secondary schools, per pupil (average daily attendance) as percent of per capita income, 1988-1989.
  Source: State Policy Research, Inc., "Table G-15," *State Policy Data Book '89* (Alexandria, VA: State Policy Research, Inc., 1989).
- **Pupil Spending, Higher Education**
  State support for higher education per pupil (full-time equivalent) as percent of per capita income, 1988-1989.
  Source: State Policy Research, Inc., "Table G-43," *State Policy Data Book '89* (Alexandria, VA: State Policy Research, Inc., 1989).
- **Average Teacher Salary**
  Average teacher salary as a percent of average annual earnings, 1988-89. Percent.
  Source: American Federation of Teachers, "Survey and Analysis of Salary Trends," Department of Research study, Washington, DC, 1989. Bureau of Labor Statistics, press release, August 29, 1989.
- **Beginning Teacher Salary**
  Beginning teacher salary as a percent of average annual earnings, 1988-1989. Percent.
  Source: Same as Average Teacher Salary.
- **Change in Teacher Salary**
  Percent change in average teacher salary, from school year 1980-81 to school year 1988-1989.
  Source: American Federation of Teachers, "Survey and Analysis of Salary Trends," Department of Research study, Washington, DC, 1989.

Education Reform

School Accountability Policies

- **Comprehensive School Performance Indicators**
  States that have a comprehensive system of performance indicators for schools, FY 1988.
  Source: U.S. Department of Education, Office of Educational Research and Improvement, *Creating Responsible and Responsive Accountability Systems* (Washington, DC: U.S. Department of Education), September 1988.
- **School Incentives**
  States in which school performance triggers rewards, sanctions or other consequences, FY 1988.
  Source: Same as Comprehensive School Performance Indicators.

Teacher Policies

- **Alternative Certification**
  States that offer alternative routes for teacher certification, FY 1989.
  Source: Council of Chief State School Officers, *Education in the States: State Education Indicators 1988* (Washington, DC: Council of Chief State School Officers, 1988).

- **Teacher Incentives**
  States that have fully implemented statewide teacher incentive programs such as career ladders, teacher mentors, and incentive pay, FY 1988.
  Source: Southern Regional Education Board, "Incentive Programs — 1988," unpublished table, Atlanta, GA, 1988.

- **Beginning Teacher Mentoring**
  States that sponsor activity that offers evaluation and/or support for employed beginning teachers, FY 1988.
  Source: American Association of Colleges for Teacher Education, *Teacher Education Policy in the States* (Washington, DC: American Association of Colleges for Teacher Education, 1988).

Student Policies

- **Early Childhood Education Programs**
  States with early childhood (pre-kindergarten) education programs, not including those for handicapped or Chapter 1 youngsters, FY 1989.
  Source: National Governors' Association, *Results in Education, 1988* (Washington, DC: National Governors' Association, 1988).

- **High School Math and Science Requirements**
  Number of math and science course units required for high school graduation, FY 1989.
  Source: Same as Early Childhood Education Programs.

- **High School Competency Test Requirement**
  States that require a competency test for high school graduation, FY 1989.
  Source: Same as Early Childhood Education Programs.

Worker Investment

Existing Workforce Investments

- **State Training Programs**
  States with funded job training programs (not JTPA-funded) that either provide customized employer-specific training or support joint public-private programs to retrain or upgrade the skills of current workers or the recently unemployed, 1989.
  Source: Northeast-Midwest Institute, *The Guide to State and Federal Resources for Economic Development* (Washington, DC: Northeast-Midwest Institute, 1988).

- **Labor-Management Assistance**
  States with programs that create or encourage the development of labor-management committees, 1989.
  Source: National Governors' Association, *Making America Work: Follow-up Report* (Washington, DC: National Governors' Association, 1988).

- **Employee Ownership Assistance**
  States with employee ownership programs, 1989.
  Source: National Center for Employee Ownership, staff interview, 1988.

Transfer Payment Investment

- **Welfare-to-Work**
  Assessment of current state efforts in welfare-to-work programs, 1989. Score.
  SOURCE: The Corporation for Enterprise Development, "Transfer Payment Investment Index," research report for Economic Climate Project, January 1990.
  NOTE: Please see *Appendix E: The Transfer Payment Investment Index* for complete text of report.
- **Unemployment Insurance Work Transition**
  Assessment of current state efforts to use UI to assist workers to become self-sufficient, 1989. Score.
  SOURCE: Same as Welfare-to-Work.

Subindex Three: Technology and Innovation

Stimulating Research

- **Research and Development Centers**
  States that finance research and development centers, 1989.
  SOURCE: Minnesota Office of Science and Technology, *State Technology Programs in the U.S.* (St. Paul: Minnesota Office of Science and Technology, 1988).
- **Research Grants**
  States with research and development grants programs, 1989.
  SOURCE: National Governors' Association, *State Competitive Research Grant Programs*, (Washington, DC: National Governors' Association, 1989).
- **Small Business Innovation Research Program**
  States that assist small business, using state staff and/or funding, to tap into the federal government agency requirement that certain agencies set aside a portion of their R&D budgets for small businesses, 1989.
  SOURCE: National Governors' Association, "State Supported SBIR Programs and Related State Technology Programs," a paper prepared for the U.S. Small Business Administration, February 1988.

Modernizing Companies

- **Technology Transfer**
  States with programs that facilitate the transmission of new technologies from the laboratory to the private sector, 1989.
  SOURCE: Same as Research and Development Centers.
- **Information/Networking**
  States with clearinghouse programs that provide state firms access to both technical and business information and that develop cooperative programs to solve common business and technology problems, 1989.
  SOURCE: Same as Research and Development Centers.
- **Technology Deployment Assistance**
  States with programs that provide state firms with assistance in deploying leading edge technologies, 1989.
  SOURCE: Same as Research and Development Centers.
- **Business Incubators**
  States that fund incubator facilities that provide below-market rates for office and lab space and offer shared support services to start-up companies, 1989.
  SOURCE: Minnesota Office of Science and Technology, *State Technology Programs in the U.S.* (St. Paul: Minnesota Office of Science and Technology, 1988). Gary R. Bettger, "Overview of State-Supported Incubator Programs: A 1988 Update," *State Legislative Report*, May 1988.

Subindex Four: International Marketing

Export Promotion

- **Counseling Services**
  Average number of counseling sessions per month provided to companies on how to export, per 100,000 residents, 1989.
  Source: National Association of State Development Agencies, *State Export Program Database*, (Washington, DC: National Association of State Development Agencies, 1988); State Policy Research, Inc., *State Policy Data Book 1989* (Alexandria: State Policy Research, Inc., 1989).
- **Foreign Trade Offices**
  Number of foreign trade offices in operation, 1989.
  Source: National Association of State Development Agencies, *State Export Program Database*, (Washington, DC: National Association of State Development Agencies, 1988). National Governors' Association, *International Trade: Program Brief* (Washington, DC: National Governors' Association, 1989).
- **Trade Seminars**
  Number of state seminars conducted for businesses on exporting, per 100,000 residents, 1989.
  Source: Same as Counseling Services.
- **Export Finance**
  States that provide direct credit to finance exporters, or that provide loan guarantees, 1989.
  Source: Same as Foreign Trade Offices.
- **Trade Staff**
  Number of state staff working on international trade programs, per 100,000 residents, 1989.
  Source: Same as Foreign Trade Offices.

Export Information

- **Market Studies**
  States that prepare overseas market research and industry studies for companies on potential for export development, 1989.
  Source: Same as Foreign Trade Offices.
- **Language Bank**
  States that offer businesses foreign language libraries and translation services, 1989.
  Source: National Governors' Association, *International Trade: Program Brief* (Washington, DC: National Governors' Association, 1989).
- **Trade Newsletters**
  States that publish publications notifying businesses about recent trade developments and state export services, 1989.
  Source: Same as Foreign Trade Offices.
- **How-to-Export Directory**
  States that publish a how-to guide on tapping the export market, 1989.
  Source: Same as Foreign Trade Offices.
- **Overseas Agent/Distributor Identification**
  States that assist companies by identifying overseas agents and distributors for their products, 1989.
  Source: National Association of State Development Agencies, *State Export Program Database*, (Washington, DC: National Association of State Development Agencies, 1988).

- **Export Product Directories**
  States that publish descriptions of products available from in-state companies for export, 1989.
  SOURCE: Same as Overseas Agent/Distributor Identification.

Subindex Five: Development Finance

Note: Because they are repeated so frequently, the following sources are referred to in this subindex's Data Source listing according to the following reference letters.

a. U.S. Small Business Administration, *Capital Formation in the States* (Washington, DC: U.S. Government Printing Office, 1988).

b. Northeast-Midwest Institute, *The Guide to State and Federal Resources for Economic Development* (Washington, DC: Northeast-Midwest Institute, 1988).

c. Governor's Commission on the Economic Future of Minnesota, *The Report of the Governor's Commission on the Economic Future of Minnesota* (St. Paul: Governor's Commission on the Economic Future of Minnesota, 1987).

d. U.S. Small Business Administration, *The Small Business Advocate, Special Edition* (Washington, DC: U.S. Government Printing Office, 1988).

e. Gary Bettger, "State Venture Capital Initiatives," *State Legislative Report, Volume II, No. 2* (Denver: National Conference of State Legislatures, February, 1986).

f. "Interstate Statutes with Deposit Restriction and/or Reinvestment Requirements," *Banking Expansion Reporter*, Golembe Associates, June 1986.

g. U.S. Small Business Administration, *The States and Small Business: Programs and Activities* (Washington, DC: U.S. Government Printing Office, November 1986).

h. U.S. Small Business Administration, *State Activities in Capital Formation: Venture Capital, Working Capital, and Public Pension Fund Investments* (Washington, DC: U.S. Government Printing Office, June 1985).

i. National Association of State Development Agencies, *Analysis of Innovative State Economic Development Financing Programs* (Washington, DC: National Association of State Development Agencies, August 1985).

j. National Association of State Development Agencies, *Directory of Incentives for Business Investment and Development in the United States* (Washington, DC: The Urban Institute Press, 1986).

Financing Types and Diversity

- **Seed Capital Funds**
  States that provide pre-start-up capital to new ventures, 1989.
  SOURCE: a,b,c,g,h.
- **Venture Capital Funds**
  States with publicly-capitalized venture capital corporations, 1989.
  SOURCE: a,b,c,e,g,h,i.
- **Product Development Finance**
  States that provide royalty financing for specific product or production processes, 1989.
  SOURCE: a,b,c,g,h.
- **Long-Term Finance**
  States that provide debt financing for specific product or production processes, 1989.
  SOURCE: b,d,g,i.

- **Medium-Risk Intermediate/Long-Term Finance**
  States that provide intermediate/long term debt on an unsecured or subordinated bases, or secured by "soft" assets such as inventories and accounts receivable, 1989.
  Source: b,g.

Leveraging Innovations

- **Leveraged Public Investments**
  States that directly invest in privately managed "public benefit" financial institutions that are designed to leverage private investment, 1989.
  Source: b,e,g,h,i.
- **Tax Credit Finance**
  States that provide for tax credits as a mechanism to create new financial institutions, such as a venture capital corporation, 1989.
  Source: b,e,h.
- **Loan Guarantees**
  States with business loan guarantee programs, 1989.
  Source: b,d,g,h,i.
- **Secondary Market Mechanisms**
  States that purchase loans originated by financial institutions, such as SBA-guaranteed loans, 1989.
  Source: b,j,i.
- **Linked Deposits**
  States that tie state deposits to a bank based on its willingness to make loans to certain types of targeted firms, 1989.
  Source: a,b,h.
- **Sub-State Development Finance Support**
  States that support public or quasi-public development finance institutions that operate on a regional or local level, 1989.
  Source: b,j.

Regulatory Innovations

- **Pension Fund Investment**
  States that invest public pension funds in venture capital, 1989.
  Source: a,e,h,i.
- **BDCs and BIDCOs**
  States that allow the creation of private non-depository financial institutions that would not be permitted under general state banking regulation, 1989.
  Source: h,j.
- **Community Reinvestment Acts**
  States with community reinvestment acts, 1989.
  Source: *Banking Expansion Reporter*, staff interview, December 1988.
- **Interstate Banking**
  States that permit interstate banking with community protections, 1989.
  Source: f.

Subindex Six: Local Economic Development Assistance

Community Planning

States that provide formal staff assistance or state funds for local jurisdictions to undertake a broad assessment of conditions and trends, and identify strategies and actions, 1989.
SOURCE: Mt. Auburn Associates and Council of State Community Affairs Agencies, "State-Sponsored Technical Assistance Programs For Local Economic Development: Draft Report Prepared for U.S. Economic Development Administration," Mt. Auburn Associates, Somerville, MA, November 1989).

Regional Development Planning

States that provide formal staff assistance or state funds to assist in regionally-based economic development planning, 1989.
SOURCE: Same as Community Planning.

Project Feasibility or Program Development

States that provide formal staff assistance or state funds to help local areas conduct project feasibility studies or develop new programs, 1989.
SOURCE: Same as Community Planning.

Organization Capacity Building

States that provide formal staff assistance or state funds for technical assistance or general support for the development of local economic development organizations, 1989.
SOURCE: Same as Community Planning.

Subindex Seven: Infrastructure and Amenities

Public Capital Budgeting

- **Facility Inventory**
  States that maintain a central unified inventory of public facilities, 1989.
  SOURCE: National Conference of State Legislatures, *Capital Budgeting and Finance* (Denver: National Conference of State Legislatures, November 1987).
- **Needs Assessments**
  States that provide regular assessments of facility conditions and investment needs, 1989.
  SOURCE: Same as Facility Inventory.
- **Capital Plans**
  States that develop long-range capital plans to guide annual capital budget requests, 1989.
  SOURCE: Same as Facility Inventory.

Housing

Affordability

- **New Construction Assistance**
  States that use own-source funds to finance new housing construction, 1989.
  SOURCE: Council of State Community Affairs Agencies, *States Housing Initiatives,* (Washington, DC: Council of State Community Affairs Agencies, 1988); Council of State Housing Agencies, *Housing Initiatives of State Finance Agencies*, (Washington, DC: Council of State Housing Agencies, 1987).
- **Rehabilitation Assistance**
  States that use own-source funds to provide financial assistance for housing rehabilitation, 1989.
  SOURCE: Same as New Construction Assistance.

- **Pre-Development and Development Cost Assistance**
  States that use own-source funds for financial assistance for land acquisition and/or development.
  SOURCE: Same as New Construction Assistance.

Direct Assistance

- **Home Ownership**
  States that use own-source funds to provide financial assistance for home ownership, 1989.
  SOURCE: Same as New Construction Assistance.
- **Tenant Assistance**
  States that use own-source funds for financial assistance to tenants, 1989.
  SOURCE: Same as New Construction Assistance.

Special Housing Needs

- **Homeless**
  States that use own-source funds to provide shelters and prevent homelessness, 1989.
  SOURCE: Council of State Community Affairs Agencies, *State Housing Initiatives,* (Washington, DC: Council of State Community Affairs Agencies, 1988); Council of State Housing Agencies, *Housing Initiatives of State Finance Agencies,* (Washington, DC: Council of State Housing Agencies, 1987); National Conference of States Legislatures, *Shaping a National Housing Policy,* (Denver: National Conference of State Legislatures, 1988).
- **Elderly**
  States that use own-source funds for construction, rehabilitation and rent subsidies for housing and special services for elderly residents, 1989.
  SOURCE: Council of State Community Affairs Agencies, *State Housing Initiatives,* (Washington, DC: Council of State Community Affairs Agencies, 1988); Council of State Housing Agencies, *Housing Initiatives of State Finance Agencies,* (Washington, DC: Council of State Housing Agencies, 1987); Council of State Housing Agencies, *State Initiatives in Elderly Housing,* (Washington, DC: Council of State Housing Agencies, 1987).
- **Housing Trust Funds**
  States with dedicated funds for housing construction and other selected housing programs, 1989.
  SOURCE: Housing Trust Fund Project, staff interview, Oakland, CA 1988.

Environment

Solid Waste Management

- **"Bottle Bills"**
  States with legislation intended to promote recycling of glass, metals and plastic by placing a deposit on beverage containers redeemable upon return of the container, 1989.
  SOURCE: Environmental Defense Fund, *Coming Full Circle* (New York: Environmental Defense Fund, 1988).
- **Mandatory Recycling**
  States with mandatory source separation and established recovery rates of recyclable material from the solid waste stream, 1989.
  SOURCE: Environmental Protection Agency, Superfund Hotline, staff interview, October, 1989.

- **Government Procurement of Recycled Paper**
  States with laws to promote the purchase of recycled paper and other products by means of set-aside contracts or price preferences favoring products incorporating recycled materials, 1989.
  Source: American Paper Institute, "State and Local Procurement of Recycled Products," unpublished table, 1989.

Hazardous Waste Management

- **Waste Minimization**
  States with sufficiently funded and staffed programs to reduce hazardous waste production and encourage recycling of waste products, 1989.
  Sources: Roger Schecter, "Reduction of Hazardous Wastes: Innovative Opportunities for Industry and Government," unpublished paper presented at Waste Minimization Conference, Government Institutes, Inc., Washington, DC, February 19-20, 1987.
- **Property Transfer Law**
  States with laws requiring owners selling a property to certify the absence of hazardous materials on the property, 1989.
  Source: Council of State Governments, States Information Center, "Industrial Property Transfer Laws," *CSG Backgrounder*, March 1988.
- **State Superfunds**
  States authorized by law to assess hazardous waste sites, initiate remedial clean-up actions and/or enforce assessments on responsible parties, 1989.
  Source: Fund for Renewable Energy and the Environment, *The State of the States, 1987* (Washington, DC: Fund for Renewable Energy and the Environment, 1987).
- **"Right-to-Know" Laws**
  States with community and workplace "right-to-know" laws concerning hazardous materials, 1989.
  Source: Thompson Publishing Group, Inc., *Community Right-to-Know Manual* (Washington, DC: Thompson Publishing Group, Inc., 1989).

Air Pollution Control

- **Toxic Air Pollution Control**
  States that have implemented comprehensive programs to regulate and reduce emissions of toxic pollutants into the air, 1989.
  Source: State and Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Control Officials, *Toxic Air Pollutants: State and Local Regulatory Strategies* (Washington, DC: STAPPA and ALAPCO, 1989).
- **Air Permits and Emissions Fees**
  States with air permits and emissions fees, 1989.
  Source: State and Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Control Officials, "Air Permit and Emission Fees: Results of a Survey," April 1989.
- **Indoor Air Pollution Control**
  States with comprehensive restrictions on indoor air pollution caused by tobacco, 1989.
  Source: Fund for Renewable Energy and the Environment, *The State of the States, 1988* (Washington, DC: Fund for Renewable Energy and the Environment, 1988).

Water Pollution Control

- **Drinking Water Testing**
  States where testing for contaminants in the drinking water is more comprehensive than mandated by federal regulations, 1989.
  Source: Center for Study of Responsive Law, *Troubled Waters on Tap* (Washington, DC: Center for Study of Responsive Law, 1988).

- **Groundwater Protection**
  States with numeric standards established for specific groundwater contaminants, 1989.
  SOURCE: Eleanor Chelimsky, "Fighting Groundwater Contamination: State Activities to Date and the Need for More Information from EPA," in U.S. Congress, Senate, Committee on Environment and Public Works, *Groundwater Protection: Hearings on S. 20, S. 1105, and H.R. 791,* 100th Congress, 2nd session, May 17, 1988.

Farmland Protection

- **Right-to-Farm Laws**
  States with laws to protect farmers from certain legal actions against normally accepted farming practices, 1989.
  SOURCE: American Farmland Trust, staff interview, October 1989.
- **Development Rights — Purchase**
  States that may purchase the development rights of farmland by paying the owner the difference between the market value and farm-use value of the land, 1989.
  SOURCE: Same as Right-to-Farm Laws.
- **Development Rights — Transfer**
  States that allow qualifying developers to increase development density in designated receiving areas if they purchase development rights from farmers whose property is in other designated sending areas, to protect their use of land for farming, 1989.
  SOURCE: Same as Right-to-Farm Laws.
- **Agriculture District Ordinances**
  States that allow farmers to organize land into legally recognized geographic areas restricted to agricultural use, 1989.
  SOURCE: Same as Right-to-Farm Laws.

Appendix A: Notes on Methodology and the Development Model

The Development Model

This is the fourth year we have presented our assessment of how supportive each state's economic environment is for business development in the form of the *Development Report Card*. The heart of the *Report Card* remains, as always, its model of the development process. Stated simply, our understanding of the development process follows.

- What we seek from an economy is long-term, widely-shared increases in our standard of living — tangible and intangible.
- The economy's performance largely results from the vitality of the business community, which organizes and manages most economic activity. Business vitality is rooted in competitive edge, diversity, market strength and long investment horizons, as well as the ability of new firms to start up and older ones to innovate and adapt.
- Business vitality springs from effectively using and augmenting the building blocks of economic development: human skills, finance, technology, natural resources, and physical, social and cultural amenities. We call these development ingredients a state's capacity.
- Government policies can foster or undermine performance, capacity and business vitality — thereby leading to a state's stronger or weaker economic performance.

This model incorporates the findings from an extensive literature review of the dynamics of development and the obstacles to economic growth. Our original research — which resulted in the four Index structure — was guided by a technical advisory board composed of economic experts and representatives from business, labor, government and community development organizations, while drawing upon our own experience in the economic development field. Our subsequent work to improve and update the *Report Card* continues to benefit from the advice and counsel of leading practitioners in economic development and opportunity policy, with whom we talk and work.

Rationale and Cautions

Like school report cards, this one is intended to identify areas where greater individual effort is desirable and useful — it should be used as a tool for making progress and not as a punishment for past practices.

To produce the *Development Report Card*, we have resisted the temptation to construct one quantitative index that would enable ranking all the states from one to fifty. Although such a summary short-hand approach captures the public imagination and proves easy and dramatic to publicize, it also unduly telescopes the very complex process of development into a single number that means little to those who are more interested in strengthening their state's economy than in capturing newspaper headlines.

Numerical rankings also obscure similarities among states and tend to take on an importance out of proportion to their real value. So instead, we choose to assign "grades" — from *A* to *F* — to states with relatively similar levels of achievement on our four separate indexes, thus providing benchmarks for evaluating the separate, but related, dimensions of state economic performance, business vitality, development capacity and state policy. Though we recognized this could also distort, grades have the advantage of attracting attention and guiding that attention to these four most important dimensions.

As in school, there can be differences in actual scores within these grades but, given the inadequacy of available data and the imprecision of some of the data available, grade ranges are as close as we believe anyone can reasonably come in sorting out the overachievers and underachievers.

By its very nature, assigning grades compares states to one another; it does not convey a sense of absolute levels. So, for example, if a state has been lacking in financial capacity and makes significant strides in improving its capacity, it may still receive a low grade if other states have added financial capacity at the same time.

Index Construction

Choosing Indexes, Subindexes and Variables

The actual construction of the four indexes in this *Development Report Card* is relatively straightforward. Each index is made up of a series of subindexes chosen on the basis of the determinants of economic development uncovered in our research.

The number of subindexes which form a final index varies from Index to Index:

- The Economic Performance Index has three subindexes used in calculating the grade — Employment, Earnings and Job Quality and Equity. It also offers an ungraded Environmental Health and Safety subindex, for information only.
- The Business Vitality Index has three subindexes — Competitiveness of Existing Businesses, Entrepreneurial Energy and Structural Diversity.
- The Development Capacity Index has four subindexes — Human Resources, Technology Resources, Financial Resources, and Infrastructure and Amenity Resources.
- The State Policy Index has been revised slightly this year to keep up with the changing intelligence on state policy to include seven subindexes: Tax and Regulatory Environment, Workforce Development, Technology and Innovation, International Marketing, Development Finance, Local Economic Development Assistance, and Infrastructure and Amenities.

Subindexes are constructed with individual variable measures — like *Infant Mortality* or *Unemployment Rate*. A few individual variable measures within the subindexes are themselves what we call *composite measures*. Actually, they might be considered sub-subindexes. A composite measure data score has been determined by examining several individual factors which comprise it. Good examples of composite measures can been found in the State Policy Index — in the three separate measures comprising the Tax and Fiscal System sub-subindex, as well as in the Transfer Payment Investment measures.

Deriving the Scores, Ranks and Grades

The method of deriving a subindex and index ranks and grade is as follows:

- Variable data — the "score" — is collected for each state. In the case of discrete data, the best score receives a ranking of 1. When a tie occurs, both states receive the same ranking, and then the next highest scoring state is ranked as if a tie had not occurred. For example, if the two best ranking states have identical variable scores, they both receive a rank of 1, and the next state is assigned a rank of 3. In a very few cases, state scores are not discrete numbers which can be ranked; instead they represent a level of effort, as in some Tax and Fiscal System measures, among others. In these cases, scores are translated into point levels which take the place of ranks.
- To compile a subindex, each individual state's rank for the variable measures are all added together. This total is the subindex score. Subindex scores are then ranked from 1 to 50. Rank ties are treated in the same way as they are for individual variables.
- Creating a final index score involves a process very similar to creating the subindex scores. State ranks on each subindex are, as in the creation of subindexes, added together, creating an index score. The resulting scores are then ranked from 1 to 50.
- Grades are assigned to each subindex and index final score. In each case, the top 10 scoring states receive *A*'s; the next 10 receive *B*'s; the middle 15 receive *C*'s; the next 10 receive *D*'s; and the final five, *F*'s.

Variable and Subindex Weights

Assigning weights within each index to subindexes is, at this time, essentially arbitrary (and consistent), in that it depends on the number of subindexes within an index. We determined that the simplest and potentially least misleading technique would be to assign equal weights to subindexes in each index. For example, in the Economic Performance Index, there are three subindexes. Therefore, each subindex carries a weight of 33 percent. Individual variable measures, consequently, have different effective weights, depending on the number of variables that compose a subindex.

In past years, we did assign different subindex weights in the Business Vitality Index, because the Structural Diversity subindex contained only one individual variable measure. But this year, because of the addition of another measure to the Diversity subindex, we now weigh this subindex equally to the other two subindexes in the Business Vitality Index.

Appendix B: Rural/Urban Disparity Measures

This year, as part of the Equity subindex in the Economic Performance Index, we devised a rural/urban disparity measure to assess the difference between rural and urban counties in a state for a variety of performance indicators.

Why a Rural/Urban Measure?

One of the major findings that emerged from our 1988 and 1989 *Development Report Cards* was rather striking. When the measures that comprise the four main Indexes were compared, many predominantly rural states were found lagging. In fact, every state that scored only *D's* and *F's* on three or all four indexes in 1989 are rural or thinly populated, with economies heavily dependent on agriculture and other natural resource-based industries. Moreover, of the 13 states that earned no *A's* or *B's* on any Index in 1989, all but one are best characterized as rural.

The implication was fairly clear — the nation's rural areas have not enjoyed the prosperity born of economic recovery over the past six years. Yet, the mere fact of *being* rural does not preclude robust economic performance or hinder pursuing an aggressive development policy. Vermont, which clearly ranked near the head of the *1989 Development Report Card* class with three *A's* and a *B*, also managed to employ nearly nine out of every ten people residing in nonmetro areas. Other predominantly rural states earned excellent marks on one or more of the four indexes.

Nonetheless, the troubling signals seemed to confirm a growing consensus among observers. Here at CfED, we wanted to look more closely at how rural areas are faring across the nation. To accomplish this, we employed the basic framework of the *Report Card*, but focused on rural areas in each of the fifty states to produce the *1989 Rural Economic Climate Report*, which was published in 1989. We decided to include selected measures from that study in this year's *Development Report Card*, specifically those that compare how economic performance differs between rural and urban areas within a state, including employment growth, unemployment, earnings growth, average earnings and poverty.

What is Rural?

The first, and perhaps most sensitive issue faced in this effort was: how do you define the term "rural?" For our purposes, we selected a definition of "non-metropolitan" developed by the U.S. Department of Agriculture Economic Research Service, one commonly (but not solely) used in recent government data collection and many private-sector studies. In it, "rural" can be generally defined as a section along a continuum that runs from metropolitan to non-metropolitan. Specifically, it includes counties that do not meet current criteria of independence, size, and commuting integration that would classify them as being part of a metropolitan statistical area. In effect, although these "rural" counties may differ significantly — one could have an urban population of over 20,000 and be adjacent to a metro area, another may be completely rural and remote — they are all free-standing with respect to reliance on a metro area.

To arrive at nonmetro measures for an entire state, we have summed the data for individual nonmetro counties within each state. Of course, there are problems with aggregating data in this way. Many rural experts take issue, and justifiably so, with lumping together counties of one thousand, say, with those having 25,000 residents, or counties adjacent to metro areas with those that are nonadjacent. However, this definition is both comprehensive, and one widely used by other analysts.

The Rural/Urban Disparity data and data sources that comprise the Rural/Urban Disparity measure follow.

Rural/Urban Disparity Data

	Emp. Grwth. Long-Term		Emp. Grwth. Short-Term		Unemployment Rate		Average Earnings		Earn. Growth Long-Term		Poverty Rate		Total 6 pts. min.
	Pts.	Rank	Pts.	Rank	Pts.	Rank	Ratio	Rank	Pts.	Rank	Pts.	Rank	Score
Alabama	0.0	12	-0.1	17	1.7	25	0.76	26	-5.0	14	0.0	3	97
Alaska	-15.8	39	-4.0	49	4.7	49	0.94	4	-25.2	38	6.2	31	210
Arizona	-23.0	45	2.7	1	6.0	50	0.89	8	-54.3	50	0.0	3	157
Arkansas	-7.7	28	-0.1	17	2.1	34	0.78	22	-16.1	23	10.4	46	170
California	-5.8	24	-0.3	21	3.8	46	0.73	33	-34.3	46	7.9	39	209
Colorado	-21.9	43	-0.4	23	2.2	36	0.75	29	-34.3	46	11.7	47	224
Connecticut	10.8	7	0.2	12	0.4	10	0.61	47	-12.1	20	0.0	3	99
Delaware	4.9	8	-0.5	25	0.6	15	0.64	46	9.6	6	0.0	3	103
Florida	-2.0	16	0.0	14	1.3	20	0.76	26	-22.5	32	0.0	3	111
Georgia	-23.1	46	0.0	14	1.4	21	0.70	39	-31.7	44	19.5	50	214
Hawaii	29.2	1	2.6	2	1.5	24	0.68	42	14.2	4	6.3	32	105
Idaho	-7.3	27	-2.5	44	2.8	40	0.79	17	-19.9	29	6.8	33	190
Illinois	-18.3	40	-2.3	42	3.0	42	0.71	37	-22.8	33	0.0	3	197
Indiana	0.0	12	-0.6	28	1.0	17	0.75	29	-0.6	11	0.0	3	100
Iowa	-12.1	32	-3.1	45	0.1	5	0.84	12	-5.7	15	-5.3	2	111
Kansas	-18.7	42	-2.2	41	0.2	7	0.79	17	-26.2	40	8.3	41	188
Kentucky	-9.6	31	-1.1	34	3.1	43	0.77	24	-11.5	18	0.0	3	153
Louisiana	-12.7	34	-0.2	19	4.1	47	0.77	24	-17.0	24	18.3	49	197
Maine	2.0	9	-0.3	21	1.4	21	0.80	15	-17.0	24	0.0	3	93
Maryland	25.1	4	2.3	3	1.9	29	0.75	29	4.7	8	0.0	3	76
Massachusetts	26.8	3	1.8	4	0.4	10	0.67	43	13.9	5	0.0	3	68
Michigan	-0.4	15	1.4	5	1.7	25	0.58	49	-3.9	13	0.0	3	110
Minnesota	-23.9	48	-1.9	40	2.1	34	0.69	41	-32.7	45	6.9	34	242
Mississippi	-23.2	47	-0.8	32	2.7	39	0.80	15	-24.2	36	9.5	44	213
Missouri	-8.7	30	0.2	12	0.9	16	0.59	48	-25.5	39	8.3	41	186
Montana	0.9	10	1.4	5	0.2	7	0.79	17	1.6	9	0.0	3	51
Nebraska	-15.0	36	-1.4	37	0.4	10	0.79	17	-19.5	28	0.0	3	131
Nevada	12.0	6	-1.4	37	0.1	5	1.01	2	17.8	3	0.0	3	56
New Hampshire	-7.2	26	0.4	11	-0.8	2	0.87	10	-27.3	41	0.0	3	93
New Jersey	0.0	12	0.0	14	0.0	4	1.00	3	0.0	10	0.0	3	46
New Mexico	-34.5	49	-0.5	25	4.2	48	0.93	5	-40.2	49	8.7	43	219
New York	-2.8	17	1.0	8	1.0	17	0.58	49	-20.2	30	0.0	3	124
North Carolina	-14.7	35	-3.7	48	1.7	25	0.70	39	-23.0	34	5.0	30	211
North Dakota	-34.5	49	-4.3	50	2.0	33	0.92	6	-17.1	26	7.3	35	199
Ohio	-4.6	21	-0.6	28	1.9	29	0.73	33	-8.7	17	0.0	3	131
Oklahoma	-8.3	29	1.2	7	1.4	21	0.71	37	-20.4	31	8.0	40	165
Oregon	-3.3	19	-1.5	39	0.4	10	0.83	13	-15.3	22	0.0	3	106
Pennsylvania	-4.2	20	-0.2	19	1.9	29	0.74	32	-12.5	21	3.4	29	150
Rhode Island	16.4	5	-0.6	28	-0.5	3	1.14	1	52.1	1	-6.2	1	39
South Carolina	-15.6	37	0.9	9	2.6	37	0.82	14	-11.7	19	0.0	3	119
South Dakota	-12.6	33	-3.5	47	0.4	10	0.79	17	-23.8	35	13.7	48	190
Tennessee	-6.2	25	-1.1	34	3.2	44	0.73	33	-19.0	27	0.0	3	166
Texas	-3.0	18	-1.2	36	0.3	9	0.66	44	-29.2	43	7.5	36	186
Utah	-18.6	41	-0.4	23	1.9	29	0.91	7	-8.1	16	7.7	37	153
Vermont	-4.7	22	-0.5	25	1.2	19	0.72	36	-28.8	42	0.0	3	147
Virginia	-22.3	44	-3.4	46	2.6	37	0.66	44	-39.4	48	10.3	45	264
Washington	-15.7	38	-2.3	42	2.9	41	0.85	11	-24.9	37	0.0	3	172
West Virginia	0.2	11	-0.7	31	3.3	45	0.78	22	8.0	7	0.0	3	119
Wisconsin	-4.8	23	-0.8	32	1.7	25	0.76	26	-3.1	12	7.8	38	156
Wyoming	27.7	2	0.5	10	-1.6	1	0.88	9	39.6	2	0.0	3	27

For final *Rural/Urban Disparity* score and rank, please see *Economic Performance Index*. For further detail on individual measures, please see appendix text and *Rural/Urban Disparity Data Sources*.

Rural/Urban Disparity Data Sources

Note: These measures were originally developed for the "The 1989 Rural Economic Report" published in CfED's bi-monthly periodical The Entrepreneurial Economy Review, September/October 1989. That report examined 32 individual performance, business vitality and capacity measures to provide an overview of development conditions in rural areas in all fifty states. The original data sources are noted below.

Long-Term Employment Growth Difference

Non-metropolitan county minus metropolitan county long-term employment growth rates, 1979-87. Percentage points.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, unpublished data diskette, 1988. Calculations by the U.S. Department of Agriculture, Economic Research Service, Agriculture and Rural Economy Division and CfED.

Short-Term Employment Growth Difference

Non-metropolitan county minus metropolitan county short-term employment growth rates, 1986-87. Percentage points.

SOURCE: Same as Long-Term Employment Growth Difference

Unemployment Difference

Non-metropolitan county minus metropolitan county unemployment rates, 1987. Percentage points.

SOURCE: Same as Long-Term Employment Growth Difference

Average Earnings Ratio

Ratio of non-metropolitan county to metropolitan county average annual labor and proprietor earnings, per full-time worker, 1986. Ratio.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, unpublished data diskette, 1988. Calculations by the U.S. Department of Agriculture, Economic Research Service, Agriculture and Rural Economy Division and the CfED.

Earnings Growth Long-Term Difference

Non-metropolitan county minus metropolitan county change in average annual labor and proprietor earnings, per full-time worker, 1979-86. Percentage points.

SOURCE: Same as Average Earnings Ratio.

Poverty Rate Difference

Non-metropolitan county minus metropolitan county poverty rates, over the period 1984-86. Percentage points.

SOURCE: Compiled from March 1986 and March 1987 Current Population Survey by Robert D. Plotnick, University of Washington Graduate School of Public Affairs.

NOTE: States received a value of zero if there was no significant difference between metropolitan and non-metropolitan poverty rates at the 90th percent confidence interval. New Jersey and Nevada received a zero because each had too small a non-metropolitan population to permit a calculation of poverty rates, and Wyoming because overall population was too low to calculate any regional poverty rate.

Appendix C: More on Traded Sector Strength and Structural Diversity

As part of the *Development Report Card*, we have developed indicators of economic competitiveness and diversity for the Business Vitality Index. *Traded Sector Strength* reflects the value added by the key industries in a state, a good measure of the state's competitiveness. The level of *Dynamic Diversity* and *Sectoral Diversity* (a new measure added this year) indicates how vulnerable a state may be to downturns in one or several of its critical industries.

Despite the fundamental importance of competitiveness and diversity to a state economy, there are no simple or straightforward measures that capture these dimensions of a state's business sectors. Therefore, we rely on our more complicated and less intuitive measures. Based on our experience with these measures, we have made several adjustments to improve upon last year's efforts. For this reason, and because they are rather complex measures in the first place, we offer here a more extensive explanation.

Traded Sector Strength

As we described earlier, the engine of any state economy is its traded sector, comprised of those businesses producing goods and services in competition with firms outside the state. Traded sector firms bring new wealth into an economy by exporting goods and services, and they retain wealth in an economy by substituting for the goods and services that otherwise would have to be imported.

The ideal way to estimate traded sector income would be to use an up-to-date input-output table to calculate precisely the value of exports from a state's businesses. Unfortunately, such up-to-date data do not exist; the latest are over a decade old.

As an alternative, we calculate the size of a state's traded sector by the amount of income it brings into the economy for each civilian worker. Using 1988 data, for each industry in a state, we estimate the amount of that industry's income derived from traded sector activities, and then sum across all industries to arrive at traded sector income for the state.

Of course, the difficulty in designing such a measure is specifying which industries within an individual state's economy are, in fact, "traded." For each state, there is a set of fully-traded and partially-traded industries. To determine those, we start with the U.S. Bureau of Economic Analysis classification of industries (as designated by SIC codes) into fully-, partially- and non-traded categories and then augment it with our own research.

Industries we count as fully-traded include: farming, agricultural services, forestry, fisheries, coal mining, petroleum mining, metals mining, manufacturing (except for food processing and printing/publishing), railroad transportation, pipeline transportation, water transportation, mail-order houses, insurance carriers, and research and development.

Partially-traded industries differ from state to state according to the extent to which their activities are traded. For instance, although in most states banking is a local, non-traded activity, in states like New York and Delaware, much banking activity is traded. Partially-traded industries may include: non-metals mining, food processing, print/publishing, air transportation, trucking, transportation services, utilities, banking, securities brokers, hotels, amusements and recreation, motion pictures, educational services, and federal government.

We then use two steps to determine the extent to which the income from the partially-traded industries in each state should be counted as traded. First, we determine a "location quotient" for each industry in each state. A location quotient measures an industry's share of state employment relative to its share of national employment. A location quotient of 1.0 means that the industry has the same share of state employment as it does national employment. A quotient of 1.5 means that the industry's share of employment in the state is 50 percent more than its national share. Next, starting with the BEA framework, we analyze the distribution of location quotients for each partially-traded industry to determine the appropriate formula for estimating the percent of industry income that is traded. In each industry, the higher the location quotient, the higher the percent of income that is attributed to the industry's trading activity.

To calculate total traded sector income, incomes from the totally-traded and partially-traded sectors were added together. To arrive at the measure of Traded Sector Strength, we divided the sum of traded sector income by the number of civilian workers in a state, so as to be able to compare across states.

Structural Diversity Measures

In measuring Structural Diversity in a state's economic base, we have expanded our analysis to consider both how diverse a state's economic structure *looks* — for example, how its employment is distributed over a wide range of industries — and how diverse it *acts*.

This year we introduce a measure on Sectoral Diversity, which examines how concentrated a state's employment is across all its traded sector industries. We employ an index developed by an economist, Dr. Herfindahl, that adds the sum of the square of each traded sector industry's share of total traded sector income. A "0" score indicates perfect diversification; a score of "1" indicates that all the traded sector activity is in just one industry. So for example, in comparing two states, each of which has only two traded industries, the state in which the split in total traded sector income is 50/50 is more diverse (a score of .5) than the state where the split is 75/25 (a score of .625).

As in prior years, we also examine how diverse a state's traded sector industries act, in a measure we now call Dynamic Diversity (formerly called "structural diversity"). That is, in an economy that has dynamic diversity, when one industry is declining, others should be growing or stable. We are, therefore, interested in the diversity of employment change, which provides a measure of protection against downside risk — we don't want to see all of a state's major industries declining at the same time. Our attention is again focused on traded sector industries, since these are the industries that generate wealth in a state.

To estimate Dynamic Diversity, we attempt to measure the extent of similarity in employment change from industry to industry. Such a similarity in change is known in statistical terms as "covariance." When employment change is diverse, there is a significant amount of negative covariance between industries — so that when one industry is declining, another is growing, and vice-versa.

Obviously, it is important to adjust for the size of each industry, so our measure assigns an industry weight based on what percentage of traded sector employment it holds. The measure also takes into account the actual percentage change in employment in each industry — the higher the percentage, the greater the impact. So if two key industries both decline significantly, the measure is more unfavorably affected than if they both decline a small amount.

To calculate Dynamic Diversity, we use these specific steps. First, each state's traded sector industries is determined by doing two things:

- For every possible pair of the top twelve traded sector industries, a score is developed. The score is the covariance of employment change in those industries between 1984 and 1988 multiplied by the weight (based on employment size of sector) of one industry times the weight of the other.
- The score for every pair of industries is then summed to get the raw state Dynamic Diversity score.

A weakness with this diversity measure is that it penalizes states in which every traded industry is growing. In fast-growth states that currently have many sectors enjoying substantial gains, it is not clear that their industries will also decline together. This year, we made adjustments to more directly counter this bias. For the states in which the overwhelming majority of traded sector industries is growing, and whose major industries are not obviously linked (for example, hotels and machinery — as opposed to hotels and entertainment), we assign a score of "0." The growing states whose scores were adjusted include California, Florida, Georgia, Oregon, Vermont and Washington.

Appendix D:
The Tax and Fiscal System Index

This Tax and Fiscal System Index comprises the Tax and Fiscal System section of the Tax and Regulatory Environment subindex of the State Policy Index. It includes three composite measures: Fiscal Stability and Balanced Revenue Sources, Tax Fairness, and Fiscal Equalization.

Fiscal Stability and Balanced Revenue Sources

A balanced revenue system that relies on a variety of taxes serves several purposes. When revenues are raised by using several different taxes fairly equally, a state is unlikely to place high tax burdens on any single tax. Balancing these revenue sources also reduces a state's vulnerability to large revenue fluctuations that occur during recessions, sectoral decline or economic shocks. Since there is no perfect tax, a final reason to employ a good mix of taxes is to limit the inequities and inefficiencies that may result from any one tax.

As described below, the "mix" potential in a balanced tax structure is wide enough to offer a state significant discretion in choosing its own mix. By itself, a perfectly-balanced revenue system does not necessarily define the "best" possible tax structure for a state. A high quality tax structure's ultimate goals also include tax fairness, economic efficiency, administrative efficiency and stable revenue-raising potential; balance is only one aspect.

To measure a balanced revenue system, we evaluate the share of total state and local tax revenues (exclusive of federal aid) provided for by three separate taxes: personal income taxes, general sales taxes, and property taxes.

Points are then assigned based on how well each separate tax compares with an "ideal" range, one that would result in a well balanced and diversified revenue system. Points this year were assigned using FY 1987 U.S. Census data compiled by the Advisory Commission on Intergovernmental Relations (ACIR) according to the following formulas:

- ***Personal Income Tax:*** States receive 25 points if personal income taxes account for 20 to 30 percent of state and local tax revenues. Two points are deducted for every percentage point outside this range.
- ***General Sales Tax:*** States receive 25 points if general sales tax revenues account for 20 to 30 percent of state and local tax revenue. Two points are deducted for every percentage point outside this range.
- ***Property Tax:*** States receive 25 points if general property tax revenues account for 20 to 30 percent of state and local tax revenue. Two points are deducted for every percentage point outside this range.

Since business investments represent long-term commitments to an area, an important consideration for businesses investing in an area is the likelihood that the quality of services they pay for through taxation — as well as the level of taxation — will remain stable over time. In addition, with the decline in federal aid and the increased vulnerability of state economies to recession and sectoral decline, states must now pay greater attention to fiscal stability.

To handle fiscal shocks without resorting to tax increases and service cuts, states need to have reserve funds available. Fiscal stability is also enhanced when spending — both direct spending and tax expenditures — is subject to close scrutiny and control. Therefore, the fiscal stability component of this tax measure is based on the presence and size of state "rainy day" reserve funds that address revenue shortfalls.

- ***Rainy Day Fund:*** States receive 10 points if they have a rainy day fund; three more points are added for every percentage point up to 5 percent of general revenue in their rainy day fund — allowing for a maximum total of 25 points.

Tax Fairness

States need to be concerned with tax fairness from two perspectives: treating taxpayers who are in the same circumstances equally — *horizontal equity* — and tailoring tax burdens to the ability to pay — *vertical equity*.

Fairness helps build political credibility for state and local governments, mitigating individual and business taxpayers' perceptions that the tax system may benefit others at their own expense. Horizontal equity also reinforces the neutrality of the tax system by minimizing the favorable treatment of certain economic activities or certain types of taxpayers. Thus, tax fairness can foster a sound business climate by buttressing government's capacity to deliver necessary services, and by placing all businesses on a "level playing field." Finally, a fair tax policy should reduce taxes for taxpayers with limited income and shield the working poor and moderate income families from a regressive tax system.

Five measures of tax fairness are included in this year's index:

- ***Sales Tax Exemption for Food:*** Exempting food from the sales tax base is a significant step states can take to ensure that the burden of sales taxes do not unfairly affect low- and moderate-income families. If states exempt food, they receive 10 points.
- ***Sales Tax on Services:*** This measure examines how extensively the sales tax base includes services, by assigning states a "degree" of service taxation, which is then translated into a maximum of ten points. A state receives 10 points for general taxation of most professional services, 8 points for broad taxation of services, 6 points for substantial taxation of services, 2 points for narrow taxation of services and no points for no or little taxation of services.
- ***Sales and Excise Tax Burdens on Low-Income Families:*** This measure examines the level or burden of sales and excise taxes as a percent of income for a low-income family of four. (Low-income is defined for this measure as the poorest 20 percent of all families in the state.) The lower the burden, the higher the score. The maximum number of points a state can receive is 15.
- ***Personal Income Tax Progressivity:*** This measure is based on a comparison of the personal income tax burden for a family with two wage earners earning $200,000 to the burden for a family with two wage earners earning $25,000. The more progressive a state's personal income tax is, the lower the share of taxes paid by the lower-income family. The maximum number of points is 25, and states that have no personal income tax receive no points.
- ***Income Tax Threshold:*** This measure ex-

amines the income level at which residents begin paying taxes. The maximum number of points is 20; the higher the income threshold, the more points a state receives. No points are given to states without a personal income tax.

- ***Property Tax Circuit Breaker:*** A state receives 20 points if it has a state-financed property tax circuit breaker available to all taxpayers and 10 points if only available for the elderly and/or disabled.

Fiscal Equalization

State policies that promote equal fiscal capacity among local governments are crucial for a sound business climate. These policies increase the ability of all communities to provide a sufficient level and quality of services to firms and individuals. Furthermore, they reduce the potential for large property tax differentials between nearby communities to influence residential and firm location choices. More importantly, equalizing state fiscal aid can alleviate financial stress and high tax burdens in urban centers that have large service needs but low taxable wealth.

Fiscal equalization was measured by the extent to which state governments finance key service costs and provide revenue sharing aid to communities. Scores were based on FY 1987 Census Bureau data compiled by the Advisory Committee on Intergovernmental Relations according to the following formula:

- ***Welfare:*** States receive .15 points for every percentage point of total state and local welfare costs assumed by state government, up to a maximum of 20 points.
- ***Health and Hospital:*** States receive .15 points for every percentage point of total state and local health and hospital costs assumed by state government up to a maximum of 20 points.
- ***Local Education:*** States receive 1 point for every percentage point of total state and local K-12 education costs assumed by state government between 30 and 70 percent, with a maximum of 40 points.
- ***Other State Aid:*** States receive 1 point for every percentage by which its other general revenue contributions to local governments exceed the U.S. average, up to a maximum score of 20 points.

Tax and Fiscal System Data

	FISCAL STABILTY AND BALANCED REVENUE SOURCES								
	Personal Income Tax 25 pts. max.		General Sales Tax 25 pts. max.		Property Tax 25 pts. max.		Rainy Day Fund 25 pts. max.		SUBTOTAL 100 pts. max.
	%	Points	%	Points	%	Points	%	Points	Points
Alabama	21.05	25.0	30.20	24.6	11.38	8.1	none	0.0	57.7
Alaska	0.03	0.0	3.33	0.0	37.56	9.9	0.2	10.6	20.5
Arizona	14.11	13.2	34.75	15.5	29.34	25.0	0.0	10.0	63.7
Arkansas	21.63	25.0	31.35	22.3	18.98	23.0	none	0.0	70.2
California	26.04	25.0	25.73	25.0	25.72	25.0	1.7	15.1	90.1
Colorado	19.60	24.2	26.67	25.0	35.70	13.6	0.0	10.0	72.8
Connecticut	6.55	0.0	25.62	25.0	38.01	9.0	2.4	17.2	51.2
Delaware	33.57	17.9	0.00	0.0	13.76	12.5	5.1	25.0	55.4
Florida	0.00	0.0	33.61	17.8	33.17	18.7	2.1	16.3	52.7
Georgia	25.18	25.0	27.97	25.0	25.32	25.0	3.0	19.0	94.0
Hawaii	25.65	25.0	38.61	7.8	16.35	17.7	none	0.0	50.5
Idaho	22.56	25.0	25.33	25.0	28.38	25.0	1.6	14.8	89.8
Illinois	16.20	17.4	24.19	25.0	34.52	16.0	none	0.0	58.4
Indiana	21.97	25.0	31.22	22.6	31.94	21.1	6.7	25.0	93.7
Iowa	22.03	25.0	19.09	23.2	37.79	9.4	0.0	10.0	67.6
Kansas	17.00	19.0	24.59	25.0	37.35	10.3	none	0.0	54.3
Kentucky	25.88	25.0	19.77	24.5	16.91	18.8	0.1	10.3	78.7
Louisiana	8.01	1.0	39.55	5.9	16.11	17.2	none	0.0	24.1
Maine	22.09	25.0	22.93	25.0	32.87	19.3	1.7	15.1	84.4
Maryland	36.66	11.7	15.09	15.2	24.36	25.0	1.6	14.8	66.7
Massachusetts	32.28	20.4	15.14	15.3	30.39	24.2	0.0	10.0	69.9
Michigan	21.87	25.0	17.32	19.6	37.69	9.6	7.0	25.0	79.3
Minnesota	28.59	25.0	18.30	21.6	30.06	24.9	5.9	25.0	96.5
Mississippi	12.14	9.3	39.08	6.8	23.69	25.0	1.1	13.3	54.4
Missouri	22.33	25.0	33.68	17.6	21.77	25.0	0.0	10.0	77.6
Montana	17.61	20.2	0.00	0.0	48.26	0.0	none	0.0	20.2
Nebraska	15.46	15.9	19.68	24.4	43.56	0.0	0.0	10.0	50.3
Nevada	0.00	0.0	34.22	16.6	22.20	25.0	none	0.0	41.6
New Hampshire	0.59	0.0	0.00	0.0	62.02	0.0	4.9	24.7	24.7
New Jersey	16.16	17.3	18.08	21.2	40.27	4.5	2.9	18.7	61.6
New Mexico	12.37	0.0	41.71	1.6	11.67	8.3	3.1	19.3	29.2
New York	29.68	25.0	19.19	23.4	28.83	25.0	0.0	10.0	83.4
North Carolina	29.36	25.0	23.84	25.0	21.36	25.0	none	0.0	75.0
North Dakota	9.35	3.7	23.36	25.0	31.70	21.6	0.0	10.0	60.3
Ohio	28.81	25.0	23.36	25.0	27.40	25.0	3.1	19.3	94.3
Oklahoma	17.03	19.1	26.34	25.0	20.12	25.0	2.1	16.3	85.4
Oregon	33.28	18.4	0.00	0.0	44.37	0.0	none	0.0	18.4
Pennsylvania	23.34	25.0	19.24	23.5	26.54	25.0	1.0	13.0	86.5
Rhode Island	21.17	25.0	20.68	25.0	37.95	9.1	2.6	17.8	76.9
South Carolina	23.89	25.0	27.84	25.0	23.33	25.0	2.6	17.8	92.8
South Dakota	0.00	0.0	31.35	22.3	41.48	2.0	none	0.0	24.3
Tennessee	1.21	0.0	45.90	0.0	21.50	25.0	3.2	19.6	44.6
Texas	0.00	0.0	25.67	25.0	41.30	2.4	0.0	10.0	37.4
Utah	23.28	25.0	29.89	25.0	28.92	25.0	3.2	19.6	94.6
Vermont	18.13	21.3	12.25	9.5	39.45	6.1	2.3	16.9	53.7
Virginia	26.76	25.0	16.20	17.4	27.74	25.0	0.0	10.0	77.4
Washington	0.00	0.0	48.06	0.0	28.46	25.0	1.1	13.3	38.3
West Virginia	20.65	25.0	33.86	17.3	17.53	20.1	none	0.0	62.3
Wisconsin	25.89	25.0	19.23	23.5	34.51	16.0	1.0	13.0	77.4
Wyoming	0.00	0.0	17.01	19.0	48.32	0.0	(0.2)	10.0	29.0

For final *Tax and Fiscal System*, scores and rank, please see *State Policy Index*.

For further detail on individual measures, please see the appendix text.

TAX FAIRNESS

Sales Tax Food Exemption 10 pts. max.		Sales Tax on Services 10 pts. max.		Low-Income Excise Burden 15 pts. max.		Income Tax Progressivity 25 pts. max.		Income Tax Threshold 20 pts. max.		Property Tax Circuit Breaker 20 pts. max.		SUBTOTAL 100 pts. max.	
Exempt?	Points	Degree	Points	%	Points	Ratio	Points	Income	Points	Type	Points	Points	
no	0	5	10	7.8	0.9	8.63	5.5	4,500	4.97	none	0	21.4	Alabama
no sales tax	10	N/A	10	2.5	15.0	0.00	0.0	0	0.00	none	0	35.0	Alaska
yes	10	5	10	6.1	3.3	17.20	15.5	8,400	9.28	renters,elderly	10	58.1	Arizona
no	0	3	6	7.1	2.4	20.42	19.5	5,600	6.19	elderly	10	44.1	Arkansas
yes	10	5	10	4.5	11.4	66.82	25.0	18,100	20.00	elderly	10	86.4	California
yes	10	5	10	4.9	10.5	12.71	10.0	13,200	14.59	disabled,elderly	10	65.1	Colorado
yes	10	4	8	5.2	8.7	0.00	0.0	0	0.00	elderly	10	36.7	Connecticut
no sales tax	10	N/A	10	2.5	15.0	22.19	20.5	8,600	9.50	none	0	65.0	Delaware
yes	10	1	2	5.0	10.2	0.00	0.0	0	0.00	none	0	22.2	Florida
no	0	5	10	5.3	8.4	14.71	13.0	9,000	9.94	none	0	41.3	Georgia
no	0	1	2	5.5	6.3	17.96	16.5	5,900	6.52	all renters	10	41.3	Hawaii
no	0	5	10	5.4	7.2	21.65	20.0	13,200	14.59	disabled,elderly	10	61.8	Idaho
yes	10	5	10	6.4	3.0	9.33	6.5	4,000	4.42	disabled,elderly	10	43.9	Illinois
yes	10	5	10	5.5	6.3	9.33	6.5	4,000	4.42	none	0	37.2	Indiana
yes	10	2	4	5.1	9.0	14.11	11.5	8,000	8.84	disabled,elderly	10	53.3	Iowa
yes	10	3	6	4.1	12.3	16.27	15.0	13,200	14.59	disabled,elderly	10	67.9	Kansas
yes	10	5	10	5.3	8.4	10.15	7.0	4,300	4.75	none	0	40.2	Kentucky
yes	10	3	6	8.6	0.6	15.95	14.5	11,000	12.15	none	0	43.3	Louisiana
yes	10	5	10	5.4	7.2	23.68	22.5	13,000	14.36	all homeowners,rent.	20	84.1	Maine
yes	10	3	6	4.4	11.7	11.07	8.0	13,400	14.81	all homeowners,eld.,rent.	20	70.5	Maryland
yes	10	5	10	3.3	13.5	11.34	8.5	12,000	13.26	none	0	55.3	Massachusetts
yes	10	5	10	5.0	10.2	10.83	7.5	7,200	7.96	all homeowners,rent.	20	65.7	Michigan
yes	10	5	10	5.9	4.8	17.50	16.0	13,200	14.59	all homeowners,rent.	20	75.4	Minnesota
no	0	3	6	9.6	0.0	29.31	24.0	15,900	17.57	none	0	47.6	Mississippi
no	0	5	10	5.9	4.8	13.47	11.0	8,200	9.06	elderly	10	44.9	Missouri
no sales tax	10	N/A	10	3.5	15.0	19.07	17.5	6,500	7.18	elderly	10	69.7	Montana
yes	10	5	10	5.4	7.2	19.13	18.0	13,200	14.59	none	0	59.8	Nebraska
yes	10	5	10	5.3	8.4	0.00	0.0	0	0.00	elderly	10	38.4	Nevada
no sales tax	10	N/A	10	2.5	15.0	0.00	0.0	0	0.00	none	0	35.0	New Hampshire
yes	10	3	6	4.0	12.6	14.73	13.5	4,000	4.42	none	0	46.5	New Jersey
no	0	1	2	5.0	10.2	30.75	24.5	12,000	13.26	elderly	10	60.0	New Mexico
yes	10	3	6	5.8	5.4	26.92	23.0	14,100	15.58	all homeowners,rent	20	80.0	New York
no	0	4	8	5.6	5.7	14.77	14.0	4,300	4.75	none	0	32.5	North Carolina
yes	10	5	10	5.9	4.8	23.59	22.0	13,200	14.59	disabled,elderly	10	71.4	North Dakota
yes	10	3	6	5.3	8.4	28.15	23.5	10,400	11.49	disabled,elderly	10	69.4	Ohio
no	0	5	10	7.6	1.5	19.28	18.5	9,200	10.17	disabled,elderly	10	50.2	Oklahoma
no sales tax	10	N/A	10	2.4	15.0	12.97	10.5	9,300	10.28	all homeowners,rent.	20	75.8	Oregon
yes	10	3	6	4.5	11.4	11.41	9.0	8,000	8.84	disabled,elderly	10	55.2	Pennsylvania
yes	10	5	10	4.7	10.8	23.55	21.5	15,700	17.35	elderly	10	79.6	Rhode Island
no	0	4	8	6.0	3.6	18.02	17.0	13,200	14.59	none	0	43.2	South Carolina
no	0	1	2	7.7	1.2	0.00	0.0	0	0.00	disabled,elderly	10	13.2	South Dakota
no	0	3	6	9.3	0.3	0.00	0.0	0	0.00	elderly,disabled vets	10	16.3	Tennessee
yes	10	3	6	7.1	2.4	0.00	0.0	0	0.00	none	0	18.4	Texas
no	0	3	6	7.3	1.8	12.48	9.5	10,900	12.04	elderly	10	39.3	Utah
yes	10	5	10	3.8	12.9	23.54	21.0	15,700	17.35	all homeowners,rent.	20	91.2	Vermont
no	0	5	10	5.0	10.2	14.27	12.0	5,900	6.52	none	0	38.7	Virginia
yes	10	2	4	6.9	2.7	0.00	0.0	0	0.00	none	0	16.7	Washington
no	0	2	4	5.8	5.4	19.51	19.0	8,000	8.84	elderly	10	47.2	West Virginia
yes	10	3	6	5.9	4.8	14.34	12.5	13,400	14.81	all homeowners,rent.	20	68.1	Wisconsin
no	0	3	6	4.2	12.0	0.00	0.0	0	0.00	disabled,elderly	10	28.0	Wyoming

FISCAL EQUALIZATION

	Welfare 20 pts. max.		Health & Hospital 20 pts. max.		K-12 Education 40 pts. max.		Other State Aid 20 pts. max.		SUBTOTAL 100 pts. max.	INDEX TOTAL 300 pts. max.
	%	Points	%	Points	%	Points	%	Points	Points	Points
Alabama	96.84	19.37	44.54	8.91	67.03	37.03	11.51	0.00	58.24	137.35
Alaska	93.38	18.68	68.40	13.68	69.35	39.35	19.92	4.50	68.12	123.60
Arizona	72.18	14.44	47.19	9.44	41.18	11.18	24.44	9.02	38.10	159.90
Arkansas	96.96	19.39	50.96	10.19	51.61	21.61	17.77	2.35	46.15	160.49
California	92.68	18.54	48.82	9.76	73.37	40.00	15.67	0.25	61.48	237.98
Colorado	82.21	16.44	48.47	9.69	33.26	3.26	6.71	0.00	22.86	160.73
Connecticut	85.93	17.19	94.48	18.90	35.28	5.28	12.89	0.00	32.35	120.23
Delaware	99.62	19.92	99.61	19.92	51.37	21.37	3.09	0.00	51.25	171.64
Florida	89.40	17.88	43.40	8.68	47.75	17.75	11.87	0.00	37.67	112.61
Georgia	100.00	20.00	23.29	4.66	54.65	24.65	4.65	0.00	48.15	183.49
Hawaii	96.22	19.24	97.11	19.42	99.97	40.00	8.29	0.00	69.00	160.79
Idaho	70.19	14.04	29.96	5.99	58.80	28.80	19.01	3.59	47.42	199.00
Illinois	92.24	18.45	54.78	10.96	42.20	12.20	13.33	0.00	34.25	136.52
Indiana	66.81	13.36	42.02	8.40	48.10	18.10	24.68	9.26	43.68	174.57
Iowa	78.01	15.60	48.01	9.60	53.58	23.58	21.55	6.13	48.62	169.55
Kansas	94.56	18.91	49.11	9.82	44.96	14.96	6.65	0.00	36.51	158.68
Kentucky	93.86	18.77	59.23	11.85	75.67	40.00	14.00	0.00	62.96	181.78
Louisiana	97.36	19.47	53.00	10.60	57.91	27.91	9.97	0.00	50.46	117.86
Maine	97.24	19.45	76.93	15.39	43.45	13.45	12.51	0.00	39.57	208.00
Maryland	97.34	19.47	100.00	20.00	31.42	1.42	20.28	4.86	40.65	177.82
Massachusetts	97.94	19.59	72.64	14.53	44.94	14.94	40.61	20.00	60.53	185.72
Michigan	93.54	18.71	68.32	13.66	27.29	0.00	26.87	11.45	35.73	180.64
Minnesota	64.64	12.93	50.31	10.06	52.26	22.26	23.34	7.92	47.42	219.28
Mississippi	90.18	18.04	28.07	5.61	67.62	37.62	24.86	9.44	64.80	166.77
Missouri	91.87	18.37	49.79	9.96	57.47	27.47	7.43	0.00	48.72	171.22
Montana	82.72	16.54	65.61	13.12	34.07	4.07	8.03	0.00	26.32	116.22
Nebraska	89.60	17.92	45.70	9.14	18.59	0.00	17.80	2.38	22.68	132.73
Nevada	75.98	15.20	27.27	5.45	64.38	34.38	25.23	9.81	59.68	139.63
New Hampshire	81.89	16.38	95.63	19.13	4.00	0.00	13.69	0.00	26.63	86.33
New Jersey	87.23	17.45	71.88	14.38	43.87	13.87	19.59	4.17	41.90	150.06
New Mexico	88.47	17.69	74.54	14.91	84.28	40.00	23.51	8.09	72.55	161.73
New York	95.94	19.19	53.09	10.62	41.72	11.72	14.07	0.00	34.08	197.43
North Carolina	94.68	18.94	60.61	12.12	64.87	34.87	13.38	0.00	58.16	165.61
North Dakota	91.46	18.29	96.40	19.28	52.90	22.90	20.15	4.73	55.81	187.50
Ohio	82.72	16.54	56.15	11.23	49.85	19.85	16.75	1.33	42.01	205.70
Oklahoma	100.00	20.00	50.11	10.02	55.41	25.41	9.67	0.00	48.20	183.72
Oregon	92.09	18.42	65.75	13.15	24.37	0.00	15.04	0.00	23.68	117.89
Pennsylvania	99.51	19.90	83.75	16.75	40.63	10.63	12.30	0.00	38.12	179.84
Rhode Island	97.99	19.60	99.17	19.83	38.70	8.70	9.49	0.00	38.27	194.82
South Carolina	83.59	16.72	55.20	11.04	60.24	30.24	13.88	0.00	51.06	187.04
South Dakota	65.55	13.11	73.10	14.62	25.47	0.00	12.24	0.00	20.80	58.34
Tennessee	92.19	18.44	38.67	7.73	41.58	11.58	19.52	4.10	35.31	96.21
Texas	91.62	18.32	41.07	8.21	45.56	15.56	3.38	0.00	35.46	91.26
Utah	100.00	20.00	84.92	16.98	55.63	25.63	7.19	0.00	53.74	187.69
Vermont	99.14	19.83	93.09	18.62	25.10	0.00	11.70	0.00	28.83	173.82
Virginia	89.04	17.81	74.30	14.86	44.35	14.35	14.65	0.00	38.85	154.96
Washington	100.00	20.00	51.25	10.25	72.72	40.00	14.03	0.00	63.90	118.90
West Virginia	99.79	19.96	53.12	10.62	68.58	38.58	4.80	0.00	61.52	171.11
Wisconsin	68.48	13.70	68.56	13.71	33.34	3.34	34.20	18.78	42.68	188.22
Wyoming	94.74	18.95	24.64	4.93	51.29	21.29	28.86	13.44	52.64	109.66

Tax and Fiscal System Data Sources

Note: All Tax and Fiscal Environment measures were calculated by The Corporation for Enterprise Development, based on the U.S. Census Bureau data for fiscal year 1987, contained in the Advisory Commission on Intergovernmental Relations' State-Local Government Finance Database, except for the following:

Rainy Day Fund

Whether a state has a rainy day fund, and size of fund relative to state appropriations, FY 1989. Score.

Source: National Conference of State Legislatures, *State Budget Action in 1989* (Denver: National Conference of State Legislatures, September, 1989).

Sales Tax Exemption for Food

States that exempt food from the sales tax, 1988.

Source: Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism,* 1989 (Washington, DC: Advisory Commission on Intergovernmental Relations, January 1989).

Sales and Excise Tax Burdens on Low-Income Families

Sales and excise tax burden, based on percent of income spent on these taxes for a family of four in poorest 25 percent of a state's population, 1987. Score.

Source: Citizens for Tax Justice, *Nickels and Dimes: How Sales and Excise Taxes Add Up in the 50 States* (Washington, DC: Citizens for Tax Justice, March 1988).

Sales Tax on Services

Degree of taxation of services, 1987. Score.

Source: Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism 1988* (Washington, DC: Advisory Commission on Intergovernmental Relations, December 1987).

Personal Income Tax Progressivity

Ratio of income tax burdens for married family with two wage earners earning $200,000 to married family with two wage earners earning $25,000, 1989.

Source: Mary L. Schmitt, *Comparison of the 1988 Individual Income Tax Burdens by State* (St. Paul: Minnesota Department of Revenue Tax Research Division, September 1989)

Income Tax Threshold

State income tax thresholds for two-parent families of four, 1988.

Source: Fred Hutchinson, *Taxing the Poor Deeper Into Poverty* (Washington, DC: Center on Budget and Policy Priorities, October 1989).

Property Tax Circuit Breaker

States with a comprehensive property tax circuit breaker, 1988.

Source: Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism, 1989* (Washington, DC: Advisory Commission on Intergovernmental Relations, January 1989).

Appendix E:
The Transfer Payment Investment Index

This Transfer Payment Investment Index comprises the two measures contained under the Transfer Payment Investment (TPI) component of the Workforce Development subindex of the State Policy Index. The TPI Index attempts to measure the extent to which a state uses income maintenance payments and other programs as investments in the economic self-sufficiency of the individuals who receive — or are targeted by — them.

During the past year, with the enactment of federal welfare reform legislation, much has occurred in this area of state policy. The federal legislation now requires states to undertake many of the transitional and training services we have been measuring in this Index. As a result, this year's Transfer Payment Investment Index is more narrowly focused. Specifically, we examine how states are investing in welfare recipients, as well as how they are using unemployment compensation (UI) to invest in people. In general, we look for signs that there is an effort to help increase the capacity of welfare and UI recipients to help themselves, and a commitment to provide the funds, programs and services necessary to enable them to become more productively active in the economy.

The Transfer Payment Investment Index has two components: Welfare-to-Work, and Unemployment Insurance Work Transition.

Welfare-to-Work

Separate efforts to offer welfare recipients employment and training services have garnered increasing attention of late. In this component, we examine whether a state is actively pursuing such strategies, as evidenced by their participation in the following:

- ***Work Supplementation:*** This option permits states to divert grants to pay for employment and training activities for AFDC recipients. These projects vary in their coverage: some are statewide, while others cover a smaller portion of the state.
- ***Self-Employment Demonstration:*** These demonstration projects permit the limited continuation of AFDC grants while recipients are assisted in starting their own microenterprises, typically through entrepreneurial training, technical assistance and seed capital loans. We include all those states that have applied for waivers from selected AFDC regulations to undertake such projects.
- ***AFDC Maximum Family Benefit:*** Without the provision of adequate AFDC, recipients have such poor living standards that efforts to initiate effective transfer payment investment strategies are hampered. Here we

gauge the adequacy of AFDC benefits from state to state by measuring AFDC benefits for a family of four as a percent of the state's per capita income.

Unemployment Insurance Work Transition

A number of states are pursuing new attempts to use Unemployment Insurance funds more creatively. These efforts aim to: enhance the employability of recipients, especially laid-off workers with little chance of being re-employed in their previous occupations; keep workers threatened by a lay-off employed part-time; or allow recipients who are likely to exhaust their benefits to use their U.I. entitlement to start new businesses. In this composite measure, we examine the following:

- ***Work Sharing:*** Several states permit partial UI payments in situations where workers are reduced from full-time to part-time work. While not an employment and training activity, such work-sharing efforts maintain an important employment link for workers, and minimize the disruptive effects of temporary downturns in normal business cycle patterns.
- ***Self-Employment Demonstration:*** A few states are permitting or planning to permit UI recipients, on a research and demonstration basis, to receive their UI funds while starting new businesses. These states are also offering business assistance and access to credit to participants through other cooperating state resources, both public and private.
- ***Employment and Training Diversion:*** Some states have channeled a portion of their UI tax receipts into special training funds, and targeted these training dollars to those who are unemployed, threatened with unemployment, or underemployed and in need of such assistance.
- ***Re-Employment Bonuses Demonstration:*** As a means of placing hard-to-employ individuals in jobs, a few states are experimenting with using UI payments as a wage subsidy to attract new employment opportunities.

Transfer Payment Investment Data

WELFARE-TO-WORK

	Work Supplementation		Self-Employment Demonstration		AFDC Maximum Family Benefit		Total Points
	Score (0-2)	Points		Points	% p.c. inc.	Points	3 pts. min.
Alabama	0	50		50	14	50	150
Alaska	0	50		50	55	1	101
Arizona	0	50		50	28	32	132
Arkansas	0	50		50	24	42	142
California	1	10		50	49	3	63
Colorado	2	1		50	31	28	79
Connecticut	1	10	■	1	39	17	28
Delaware	0	50		50	27	34	134
Florida	2	1		50	24	42	93
Georgia	0	50		50	25	40	140
Hawaii	0	50		50	47	5	105
Idaho	0	50		50	32	26	126
Illinois	2	1	■	1	26	37	39
Indiana	1	10		50	29	31	91
Iowa	1	10	■	1	40	14	25
Kansas	1	10		50	37	19	79
Kentucky	0	50		50	25	40	140
Louisiana	0	50		50	23	45	145
Maine	2	1		50	44	9	60
Maryland	1	10	■	1	28	32	43
Massachusetts	2	1		50	36	20	71
Michigan	1	10	■	1	46	7	18
Minnesota	1	10	■	1	45	8	19
Mississippi	0	50	■	1	16	49	100
Missouri	0	50		50	26	37	137
Montana	0	50		50	40	14	114
Nebraska	0	50		50	36	20	120
Nevada	0	50		50	26	37	137
New Hampshire	0	50		50	35	24	124
New Jersey	1	10		50	27	34	94
New Mexico	0	50		50	30	30	130
New York	1	10		50	39	17	77
North Carolina	1	10		50	24	42	102
North Dakota	0	50		50	48	4	104
Ohio	1	10		50	31	28	88
Oklahoma	2	1		50	36	20	71
Oregon	2	1		50	40	16	67
Pennsylvania	0	50	■	1	36	20	71
Rhode Island	2	1		50	42	11	62
South Carolina	0	50		50	23	45	145
South Dakota	0	50		50	41	12	112
Tennessee	0	50		50	18	47	147
Texas	0	50		50	18	47	147
Utah	1	10		50	43	10	70
Vermont	2	1		50	54	2	53
Virginia	1	10		50	27	34	94
Washington	1	10		50	41	12	72
West Virginia	0	50	■	1	32	26	77
Wisconsin	2	1		50	47	5	56
Wyoming	0	50		50	34	25	125

For final *Transfer Payment Investment* scores and ranks, please see *State Policy Index*.
For further detail on individual measures, please see appendix text and *Transfer Payment Investment Data Sources*.

UNEMPLOYMENT INSURANCE WORK TRANSITION

Work Sharing Points	Self-Employment Demonstration Points	Empl. & Training Diversion Points	Re-Employment Bonus Demo. Points	Total Points 4 pts. min.	
■ 1	50	50	50	151	Alabama
■ 1	50	50	50	151	Alaska
■ 1	50	50	50	151	Arizona
■ 1	50	50	50	151	Arkansas
■ 1	50	■ 1	50	102	California
50	50	50	50	200	Colorado
50	50	50	50	200	Connecticut
50	50	■ 1	50	151	Delaware
■ 1	50	50	50	151	Florida
50	50	50	50	200	Georgia
50	50	50	50	200	Hawaii
50	50	50	50	200	Idaho
■ 1	50	50	■ 1	102	Illinois
50	50	50	50	200	Indiana
50	50	50	50	200	Iowa
■ 1	50	50	50	151	Kansas
50	50	50	50	200	Kentucky
■ 1	50	50	50	151	Louisiana
50	50	50	50	200	Maine
■ 1	50	50	50	151	Maryland
50	■ 1	50	50	151	Massachusetts
50	50	50	50	200	Michigan
■ 1	■ 1	50	50	102	Minnesota
50	50	50	50	200	Mississippi
■ 1	50	50	50	151	Missouri
50	50	50	50	200	Montana
50	50	50	50	200	Nebraska
50	50	50	50	200	Nevada
50	50	50	50	200	New Hampshire
50	50	50	■ 1	151	New Jersey
50	50	50	50	200	New Mexico
■ 1	50	50	50	151	New York
50	50	50	50	200	North Carolina
50	50	50	50	200	North Dakota
50	50	50	50	200	Ohio
■ 1	50	50	50	151	Oklahoma
■ 1	■ 1	50	50	102	Oregon
50	50	50	■ 1	151	Pennsylvania
50	50	50	50	200	Rhode Island
50	50	50	50	200	South Carolina
50	50	50	50	200	South Dakota
50	50	50	50	200	Tennessee
■ 1	50	50	50	151	Texas
50	50	50	50	200	Utah
■ 1	50	50	50	151	Vermont
50	50	50	50	200	Virginia
■ 1	■ 1	50	■ 1	53	Washington
50	50	50	50	200	West Virginia
50	50	50	50	200	Wisconsin
50	50	50	50	200	Wyoming

Transfer Payment Investment Data Sources

Welfare-to-Work

Work Supplementation

States that operate a work supplementation program that permits grant diversion, 1988. Score.

Source: U.S. Department of Health and Human Services, *Characteristics of State Plans for AFDC, 1989* (Washington, DC: Government Printing Office, 1989).

States receive a score of 2 if statewide, 1 for partial state coverage, 0 if no program.

Self-Employment Demonstration

States that have applied for waivers to do self-employment demonstrations for welfare recipients, or that are doing such demonstrations through other means, 1988.

Source: U.S. Department of Health and Human Services, Family Support Administration, Office of Family Assistance, staff interview, January 1989.

AFDC Maximum Family Benefit

AFDC benefit level for a family of four as a percent of per capita income, January 1988.

Source: State Policy Research, Inc. "Table H-8," *State Policy Data Book '89* (Alexandria, VA: State Policy Research, Inc., 1989).

Unemployment Insurance Work Transition

Work Sharing

States that permit payment of UI for part-time workers, 1989.

Source: Fred Best, *Reducing Workweeks to Prevent Lay-offs* (Philadelphia: Temple University Press, 1988); updated in CfED State Policy Survey.

Self-Employment Demonstration

States that have allowed or are planning to allow, on a demonstration basis, UI recipients to continue to receive and use UI funds while pursuing self-employment, 1989.

Source: U.S. Department of Labor, Office of Legislation and Actuarial Services, staff interview, December 1989.

Employment and Training Diversion

States that have diverted UI funds to support employment and training, 1989.

Source: Evelyn Ganzglass and Maria Heidcamp, "State Strategies to Train a Competitive Workforce," Center for Policy Research paper, National Governors' Association, 1988; and updated by staff interview with U.S. Department of Labor, Office of Unemployment Insurance, December 1989.

Re-Employment Bonuses Demonstration

States that have used UI funds as bonuses to firms for hiring UI recipients, 1989.

Source: U.S. Department of Labor, Office of Unemployment Insurance, staff interview, December 1989.

The State Report Cards

Alabama

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
D	D	D	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
B	C	B	B

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
D	C	D	D	D

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
B	C	B	C	D	A	C	C

Alaska

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
F	C	B	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
B	C	D	C

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
A	B	C	C	B

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	F	D	A	C	A	C	C

Arizona

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
B	C	C	**C**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
D	A	C	**C**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
C	C	C	B	**C**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	D	C	F	F	A	D	**F**

Arkansas

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	F	C	**D**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
B	C	B	**C**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
D	F	F	D	**F**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
F	D	A	A	B	C	D	**C**

California

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
B	B	C	**B**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
C	A	C	**B**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
C	A	A	C	**B**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
A	A	F	C	C	A	A	**B**

Colorado

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
D	C	C	**D**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
D	B	A	**B**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
A	A	C	A	**A**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
B	D	C	C	D	F	C	**F**

Connecticut

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	A	A	**A**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
A	C	B	**B**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
B	A	A	C	**A**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
D	A	C	B	B	A	A	**B**

Delaware

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
A	B	A	**A**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
A	B	F	**C**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
C	A	B	A	**A**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
D	B	C	B	D	C	B	**C**

Florida

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
A	C	C	**B**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
D	A	B	**B**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
D	D	D	C	**D**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	A	C	C	D	C	A	**C**

Georgia

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
B	C	D	**C**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
B	A	B	**A**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
D	D	B	C	**D**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
B	D	A	D	D	A	D	**C**

Hawaii

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
B	A	A	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
D	B	D	D

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
B	C	C	A	B

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	A	B	D	D	F	C	C

Idaho

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	D	C	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
C	C	D	D

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
C	C	C	D	C

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
A	D	B	A	D	C	F	C

Illinois

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	**1990 INDEX GRADE**
D	B	F	**D**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	**1990 INDEX GRADE**
B	F	B	**C**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	**1990 INDEX GRADE**
C	B	A	B	**B**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	**1990 INDEX GRADE**
C	C	A	C	B	A	A	**B**

Indiana

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	**1990 INDEX GRADE**
A	B	B	**B**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	**1990 INDEX GRADE**
B	C	B	**B**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	**1990 INDEX GRADE**
C	C	C	C	**C**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	**1990 INDEX GRADE**
B	A	A	B	A	C	D	**A**

Iowa

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	C	F	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
C	D	D	D

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra. Amenity Resources Subindex	1990 INDEX GRADE
B	C	F	F	D

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
B	B	A	B	A	A	C	A

Kansas

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	C	B	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
D	C	C	D

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra. Amenity Resources Subindex	1990 INDEX GRADE
A	D	D	D	D

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
B	D	A	B	B	C	C	B

Kentucky

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	**1990 INDEX GRADE**
D	F	D	**F**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	**1990 INDEX GRADE**
C	C	A	**B**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	**1990 INDEX GRADE**
F	F	C	D	**F**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	**1990 INDEX GRADE**
A	B	A	D	D	F	C	**C**

Louisiana

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	**1990 INDEX GRADE**
F	D	F	**F**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	**1990 INDEX GRADE**
F	D	D	**F**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	**1990 INDEX GRADE**
F	D	C	F	**F**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	**1990 INDEX GRADE**
F	C	D	C	A	F	C	**D**

Maine

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
B	C	A	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
C	A	C	A

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
C	D	C	C	D

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
A	C	C	A	B	F	B	C

Maryland

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
B	A	A	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
C	A	B	A

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
B	A	B	B	A

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
D	A	B	A	B	A	A	A

Massachusetts

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
B	A	A	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
A	D	B	B

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
B	A	A	B	A

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	C	C	D	A	A	A	B

Michigan

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
D	B	D	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
A	D	D	C

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
C	B	C	C	C

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
B	B	A	B	A	A	B	A

Minnesota

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	**1990 INDEX GRADE**
A	A	C	**B**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	**1990 INDEX GRADE**
A	C	C	**C**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	**1990 INDEX GRADE**
A	B	A	A	**A**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	**1990 INDEX GRADE**
A	C	A	A	A	C	A	**A**

Mississippi

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	**1990 INDEX GRADE**
D	F	D	**D**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	**1990 INDEX GRADE**
C	C	A	**C**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	**1990 INDEX GRADE**
F	F	F	F	**F**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	**1990 INDEX GRADE**
B	B	C	F	C	C	C	**C**

Missouri

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	C	C	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
D	D	A	C

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
C	C	C	C	C

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
A	C	A	D	B	C	B	B

Montana

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
F	D	B	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
D	B	D	D

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
A	D	D	C	C

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	D	C	D	B	C	D	D

Minnesota

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	**1990 INDEX GRADE**
A	A	C	**B**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	**1990 INDEX GRADE**
A	C	C	**C**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra. Amenity Resources Subindex	**1990 INDEX GRADE**
A	B	A	A	**A**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	**1990 INDEX GRADE**
A	C	A	A	A	C	A	**A**

Mississippi

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	**1990 INDEX GRADE**
D	F	D	**D**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	**1990 INDEX GRADE**
C	C	A	**C**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra. Amenity Resources Subindex	**1990 INDEX GRADE**
F	F	F	F	**F**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	**1990 INDEX GRADE**
B	B	C	F	C	C	C	**C**

Nebraska

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	C	C	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
A	D	D	D

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
B	D	D	A	C

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	D	C	F	C	C	D	F

Nevada

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
A	B	B	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
B	A	F	C

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
B	C	C	C	C

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
D	D	F	D	D	C	F	F

New Hampshire

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
A	A	A	**A**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
A	A	C	**A**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra. Amenity Resources Subindex	1990 INDEX GRADE
A	C	B	D	**C**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
D	F	C	F	D	C	C	**F**

New Jersey

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	A	A	**A**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
A	C	B	**A**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
C	B	A	A	**A**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
B	C	A	C	C	C	A	**B**

New Mexico

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	F	F	**F**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
F	B	A	**C**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
C	A	D	C	**C**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	C	B	C	C	C	C	**C**

New York

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	B	D	**C**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
A	F	A	**A**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
D	A	A	C	**B**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
A	A	A	C	B	A	A	**A**

North Carolina

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	**1990 INDEX GRADE**
A	C	C	**C**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	**1990 INDEX GRADE**
A	C	B	**A**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	**1990 INDEX GRADE**
D	C	B	B	**C**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	**1990 INDEX GRADE**
D	B	C	C	D	C	C	**D**

North Dakota

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	**1990 INDEX GRADE**
D	D	C	**D**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	**1990 INDEX GRADE**
F	D	F	**F**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	**1990 INDEX GRADE**
B	D	D	F	**D**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	**1990 INDEX GRADE**
A	F	C	D	B	A	F	**D**

Ohio

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
D	B	B	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
C	F	C	D

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
D	B	B	B	C

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
A	A	A	C	B	C	B	A

Oklahoma

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
F	F	D	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
D	D	D	F

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
C	C	F	D	D

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	B	A	A	A	A	C	A

Oregon

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	C	C	**C**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
B	B	C	**B**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
B	C	B	A	**A**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	A	B	C	C	A	B	**B**

Pennsylvania

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	A	B	**B**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
C	C	A	**B**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
C	B	A	A	**A**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	A	B	C	A	A	B	**A**

Rhode Island

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
A	A	B	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
B	D	C	C

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra. Amenity Resources Subindex	1990 INDEX GRADE
D	B	A	D	B

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	C	B	B	A	C	A	B

South Carolina

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
B	D	C	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
C	C	C	D

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra. Amenity Resources Subindex	1990 INDEX GRADE
F	F	D	B	D

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	C	C	C	C	C	D	D

South Dakota

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	D	D	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
C	C	C	C

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
B	F	B	D	C

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
D	F	C	B	D	A	F	D

Tennessee

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	D	D	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
C	B	A	A

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
F	C	C	C	D

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
F	C	C	D	C	A	C	D

Texas

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
D	C	C	D

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
D	B	C	C

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
D	C	A	A	B

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
D	C	B	F	C	C	D	D

Utah

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
C	C	A	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
F	B	A	C

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
A	A	D	B	A

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
B	D	C	B	C	A	F	C

Vermont

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
A	B	A	A

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
B	A	C	A

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
A	B	B	C	B

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	B	D	D	C	C	C	D

Virginia

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
A	A	C	B

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
D	A	A	A

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
C	B	B	B	B

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
D	C	B	A	D	A	B	B

Washington

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
B	C	C	C

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
C	B	C	C

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
A	A	C	A	A

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
F	B	C	A	F	A	B	C

West Virginia

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	1990 INDEX GRADE
F	D	F	F

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	1990 INDEX GRADE
C	C	D	D

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	1990 INDEX GRADE
D	D	F	F	F

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	1990 INDEX GRADE
C	C	D	C	B	A	D	C

Wisconsin

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	**1990 INDEX GRADE**
B	B	B	**B**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	**1990 INDEX GRADE**
C	F	D	**D**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	**1990 INDEX GRADE**
B	B	C	C	**C**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	**1990 INDEX GRADE**
A	B	A	B	B	A	B	**A**

Wyoming

ECONOMIC PERFORMANCE INDEX

Employment Subindex	Earnings & Job Quality Subindex	Equity Subindex	**1990 INDEX GRADE**
D	D	B	**C**

BUSINESS VITALITY INDEX

Business Competitiveness Subindex	Entrepreneurial Energy Subindex	Structural Diversity Subindex	**1990 INDEX GRADE**
D	F	F	**F**

DEVELOPMENT CAPACITY INDEX

Human Resources Subindex	Technology Resources Subindex	Financial Resources Subindex	Infra./Amenity Resources Subindex	**1990 INDEX GRADE**
A	D	D	B	**C**

STATE POLICY INDEX

Tax & Reg. Environment Subindex	Workforce Development Subindex	Technology & Innovation Subindex	International Marketing Subindex	Development Finance Subindex	Local Econ. Dev. Assist. Subindex	Infrastructure and Amenities Subindex	**1990 INDEX GRADE**
F	F	F	A	A	C	D	**D**

Appendix F: The 1989 Development Report Card

	Performance Index	Business Vitality Index	Capacity Index	Policy Index
Alabama	D	B	D	F
Alaska	C	B	C	D
Arizona	B	B	C	F
Arkansas	D	C	F	C
California	B	B	A	A
Colorado	D	C	A	C
Connecticut	A	A	A	B
Delaware	A	A	A	C
Florida	B	B	D	C
Georgia	C	A	D	C
Hawaii	A	D	B	C
Idaho	D	C	C	D
Illinois	C	D	B	B
Indiana	B	B	D	C
Iowa	[illegible]	F	C	B
Kansas	B	C	C	B
Kentucky	F	C	F	C
Louisiana	F	D	F	D
Maine	B	A	D	A
Maryland	A	A	A	A
Massachusetts	A	A	A	A
Michigan	C	C	C	A
Minnesota	B	C	A	A
Mississippi	F	D	F	C
Missouri	C	F	C	C
Montana	D	C	C	D
Nebraska	C	F	C	D
Nevada	A	B	C	F
New Hampshire	A	A	C	D
New Jersey	A	A	B	A
New Mexico	D	C	C	D
New York	B	C	B	A
North Carolina	B	B	D	B
North Dakota	C	D	C	D
Ohio	C	C	B	B
Oklahoma	F	D	D	B
Oregon	B	D	B	C
Pennsylvania	C	D	A	A
Rhode Island	A	C	C	B
South Carolina	C	A	D	C
South Dakota	D	F	D	F
Tennessee	C	B	D	D
Texas	D	C	B	D
Utah	C	C	B	C
Vermont	A	A	A	B
Virginia	B	B	B	B
Washington	C	C	A	B
West Virginia	F	D	F	C
Wisconsin	B	D	B	A
Wyoming	D	F	C	D

Acknowledgments

Project Team

Project Director: Mitchell Horowitz
Principal Writer: William E. Nothdurft
Writers: Mitchell Horowitz
Doug Ross
Janet Topolsky
Editor: Janet Topolsky
Research Assistant: Rachelle Jailer

CfED Staff

Doug Ross, President
Beverly V. Brandon-Simms
Sheela Rani Das
Rona F. Feit
Robert E. Friedman
Linda Girvin
Gordon F. Goodwin
Mitchell Horowitz
Joyce A. Klein
Debby Manley
Elizabeth A. McKenna
William Schweke
Janet Topolsky

Mt. Auburn Associates

Birny Birnbaum
Peter Kwass
Andrew Reamer
Beth Siegel

Special Thanks

Design: Michelle Boris Lytle
Patrice Gallagher
Graphics: Stephen Rowe
Scott Johnson
Printing: Line Marque Printing, Inc.
Release Coordination: Ed Meyers

Project Funding

The funding for CfED's Economic Climate Project comes in equal portions from corporations, labor unions and private foundations, as well as from *Report Card* sales. Project funders are listed on the back cover.

To Order the Report Card

The 1990 Development Report Card for the States — as well as prior editions -- are available from CfED. Please contact CfED for regular and bulk order discount prices, or for information about other CfED publications and CfED technical assistance and consulting services.

This Report Card reflects a fine-tuned effort to measure the salient qualities that distinguish business environments among the nation's 50 states. It asks the right questions. It focuses on the real issues. And it provides a clear reference for states hoping to improve their business environment.

Arthur Levitt, Jr
Former Chairman, American Stock Exchange

This study sets itself apart . . . by recognizing the complexities of a region's economic health. It not only weighs standard business measures, but recognizes that a thriving economy needs more . . . a healthy and educated workforce, a creative environment and a vital financial support network.

Chicago Sun-Times

……

Economic Climate Sponsors

Aetna Life & Casualty Foundation
American Federation of State, County & Municipal Employees
American Federation of Teachers
Ameritech Foundation
Charles Stewart Mott Foundation
The Joyce Foundation
The Levi Strauss Foundation
Public Employee Department, AFL-CIO
Rural Economic Policy Program of the Aspen Institute for Humanistic Studies and
The Ford Foundation
Service Employees International Union

The Corporation for Enterprise Development (CfED) is a national not-for-profit economic development research and consulting organization

The Corporation for Enterprise Development
1725 K Street, NW
Suite 1401
Washington, DC 20006
202/293-7963

The 1990 Development Report Card for the States

Corrections

The National Economic Check-Up

- *Page 11, column 2, paragraph 1.* Please insert "Rhode Island" after Oregon and before Vermont in the list of nine Northeast and Pacific states.

The Development Capacity Index

- *High School Attainment.* The ranks are printed incorrectly. Correct ranks are attached. Page 56.

- *University Research and Development.* The correct data for Maryland is $168.70 and for Massachusetts is 134.70, which alters the printed ranks. Correct data and ranks are attached. Page 57.

- *Commercial Bank Deposits.* The correct figure for Louisiana is $6,844, which alters the printed ranks. Correct data and ranks are attached. Page 58.

- *Tourism Spending.* California's rank was incorrect, and is changed to 13, which increases all the printed ranks from 13 to 50 by one. Correct ranks are attached. Page 59.

The State Policy Index

- *Page 81, column 2, paragraph 5.* Under Property Transfer Law, the parenthetical "(only two to date)" should read "(only five to date)."

- *Fiscal Equalization.* The score was not summed correctly for all states. Correct data and rank are attached. Page 85.

  Please note that the identical data is in Appendix D: The Tax and Fiscal System Index, under the column titled "SUBTOTAL," and should be corrected there as well. Page 120.

- *Tax and Fiscal System "Final."* The Fiscal Equalization correction noted above changes the final Tax and Fiscal System Score. Correct data and rank are attached. Page 85.

  Please note that the identical data is in Appendix D: The Tax and Fiscal System Index, under the column titled "INDEX TOTAL," and should be corrected there as well. Page 120.

- *Trade Seminars.* The ranks are printed incorrectly. Correct ranks are attached. Page 89.

These corrections have no significant impact on the subindex and index grades in the *Development Report Card*.

	High School Attainment	Univ. R&D per capita		Bank Deposits per 1,000 pop.		Tour. Spend. per capita	Fiscal Equalization		Final		Trade Seminars
	Rank	$	Rank	$	Rank	Rank	Score	Rank	Score	Rank	Rank
Alabama	45	44.03	30	6,243	39	50	65.31	11	144.41	36	31
Alaska	2	73.79	7	7,306	26	7	76.21	3	131.71	39	4
Arizona	11	57.46	16	6,710	35	11	44.07	36	165.87	32	42
Arkansas	47	15.67	49	6,588	38	42	53.55	22	167.85	29	17
California	13	61.04	13	7,283	28	13	68.55	9	245.05	1	47
Colorado	4	62.70	12	6,215	41	9	29.39	49	167.29	30	27
Connecticut	19	77.49	6	8,505	16	29	41.37	43	129.27	40	19
Delaware	22	48.51	26	34,514	1	20	61.21	15	181.61	20	8
Florida	25	22.06	46	7,641	22	4	44.31	35	119.21	45	21
Georgia	40	55.39	19	6,687	36	36	49.31	27	184.61	17	44
Hawaii	7	58.80	14	9,742	6	2	78.67	2	170.47	27	7
Idaho	19	30.81	41	5,861	42	21	52.42	24	204.02	7	6
Illinois	31	47.32	27	10,084	5	33	41.60	41	143.90	37	29
Indiana	25	37.99	35	7,475	25	47	49.12	28	180.02	21	48
Iowa	22	63.52	11	9,119	8	44	54.92	21	175.82	24	18
Kansas	7	40.07	32	8,708	13	38	43.69	38	165.89	31	35
Kentucky	46	24.71	44	7,819	20	46	70.62	5	189.52	14	46
Louisiana	41	37.47	36	6,844	34	40	57.98	18	125.38	42	14
Maine	25	14.37	50	5,083	47	6	48.28	30	216.78	3	10
Maryland	16	168.70	1	7,599	23	18	45.75	34	182.95	19	31
Massachusetts	13	134.70	2	11,565	4	17	69.06	8	194.26	11	40
Michigan	31	47.12	28	7,153	29	32	43.82	37	188.82	16	43
Minnesota	11	58.52	15	8,989	12	12	53.17	23	225.07	2	3
Mississippi	48	24.22	45	6,229	40	49	70.71	4	172.71	26	38
Missouri	31	45.20	29	8,645	14	24	55.80	19	178.30	23	28
Montana	7	39.88	33	7,555	24	31	33.73	46	123.63	44	36
Nebraska	16	52.06	24	9,113	9	41	29.44	48	139.54	38	24
Nevada	6	30.81	41	5,795	43	1	64.84	13	144.84	35	5
New Hampshire	16	49.21	25	7,298	27	5	35.50	45	85.20	49	50
New Jersey	34	31.58	40	8,607	15	8	49.86	25	157.96	34	39
New Mexico	25	82.70	4	5,596	45	14	80.70	1	169.90	28	12
New York	37	69.56	8	14,216	2	28	41.53	42	204.93	5	41
North Carolina	41	57.02	17	6,679	37	23	65.93	10	173.43	25	30
North Dakota	25	53.12	21	9,014	11	25	65.20	12	196.90	8	14
Ohio	34	35.14	38	4,552	49	45	48.95	29	212.65	4	45
Oklahoma	22	34.91	39	7,045	33	37	55.43	20	191.03	13	9
Oregon	7	54.10	20	5,495	46	22	31.57	47	125.77	41	23
Pennsylvania	37	56.13	18	9,017	10	26	47.28	32	188.98	15	49
Rhode Island	43	77.93	5	9,160	7	48	48.13	31	204.63	6	26
South Carolina	43	29.24	43	4,146	50	16	57.99	17	193.99	12	33
South Dakota	19	17.24	47	11,600	3	39	27.73	50	65.23	50	20
Tennessee	49	37.35	37	7,046	32	34	41.86	40	102.76	47	37
Texas	34	52.88	22	8,407	17	30	42.10	39	97.90	48	34
Utah	1	86.35	3	5,021	48	15	62.61	14	196.51	9	16
Vermont	13	66.21	10	8,300	18	3	38.45	44	183.35	18	2
Virginia	39	39.17	34	7,805	21	19	47.01	33	163.11	33	22
Washington	2	52.40	23	5,736	44	27	70.25	6	125.25	43	13
West Virginia	49	16.14	48	7,148	30	43	69.17	7	178.67	22	11
Wisconsin	25	66.95	9	7,052	31	35	49.53	26	195.03	10	25
Wyoming	5	43.37	31	7,878	19	10	58.61	16	115.61	46	1